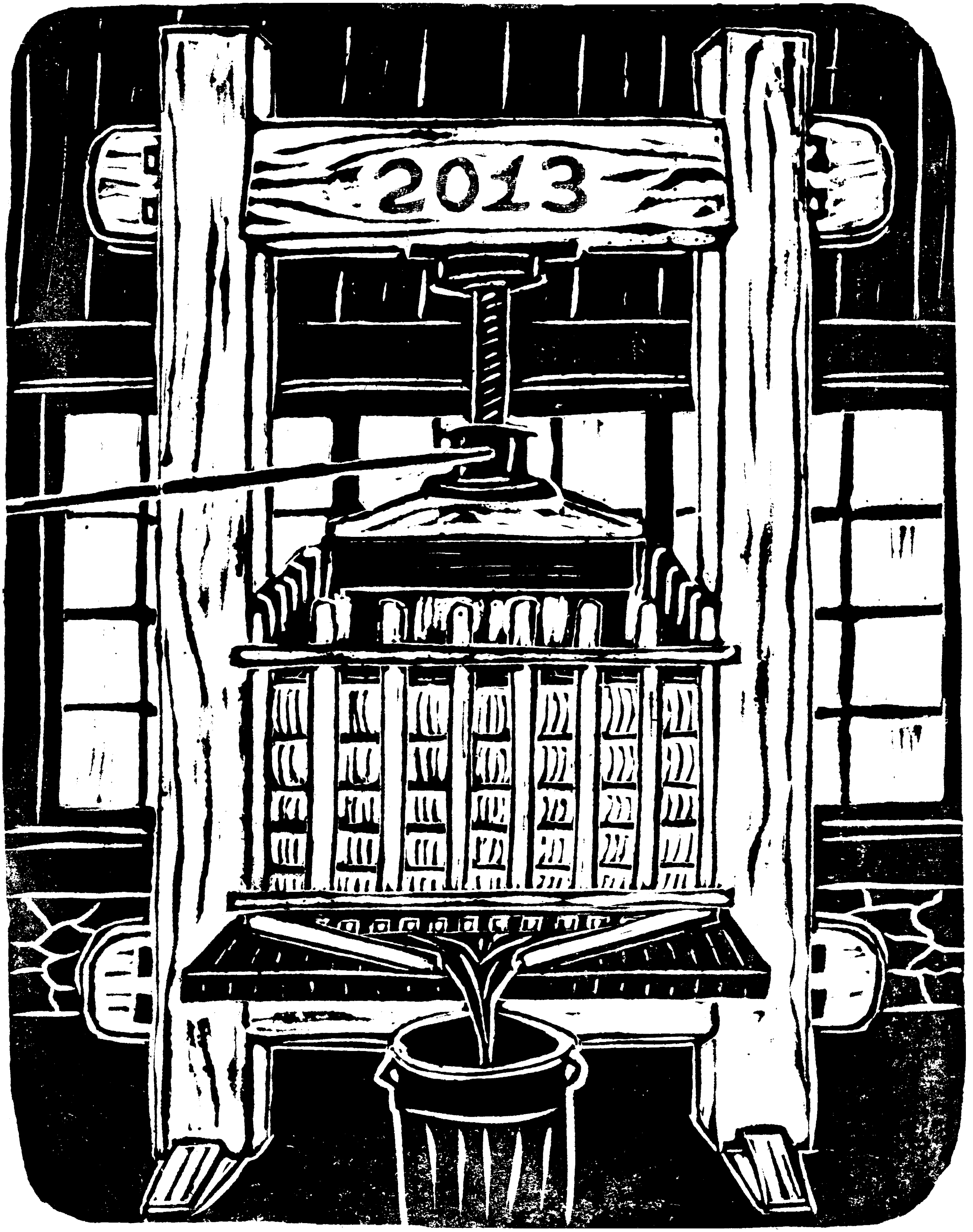
FEDCO TREES



PRESSING CIDER FOR 30 YEARS!

FEDCO TREES 2013

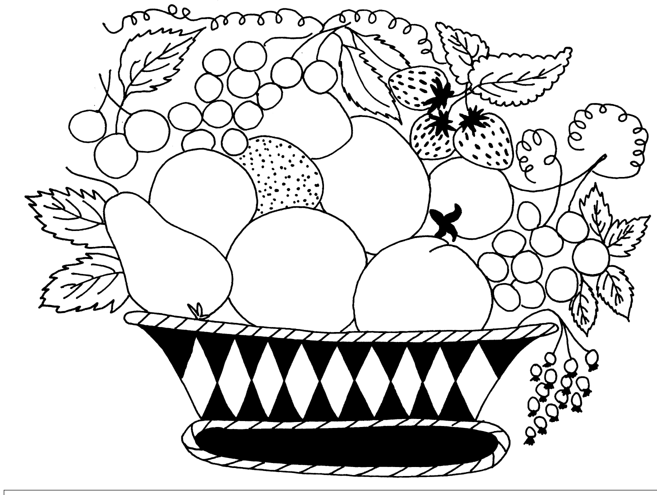
Welcome to Fedco Trees' 29th annual order. Our goal is to provide the hardiest and healthiest plants available for cold climates, while supporting small-scale, local agriculture and a fair, cooperative and responsible workplace. Our no-frills operation and volume discounts help keep plants affordable. Consider ordering in a group with co-workers, friends or neighbors to further minimize your costs.

Fedco Trees is unique in the nursery trade for a number of reasons. First of all, we are a cooperative, owned by members and employees. For more information about the co-op, see page 7. We'd be happy to have you join us. Second, we purchase about three-fourths of our stock from a group of two dozen Maine growers. Look for **ME Grown** at the end of each description for those items. We meet annually with the growers to discuss important issues such as plant selection, growing practices and pricing. They are very involved in what we do.

Our growers dig and deliver trees, shrubs and vines to our warehouse in November. We grade each plant and store them in Clinton over the winter. When grading our inventory, we focus on good roots and healthy stems. Because we are a relatively small company with multiple growers, the size of the plants might vary. The quality does not. You will receive well-rooted plants, ready to thrive in your landscape.

Keep this catalog! It includes your planting guide and a lot more information suitable for browsing and entertainment. We reorganized the catalog a bit more this year. Hardy Tree Fruits and Small Fruits & Berries are followed by a general category Trees, Shrubs, Roots & Vines, for all other trees and shrubs organized in alphabetical order by their botanical names. Throughout this section, you will find edibles intermingled with ornamentals. We've been noticing how plants love to interact and collaborate with people as well as with one another. We want the organization of the catalog to reflect that thinking. After the woody plants come Tender Bulbs followed by Herbaceous Perennials and Herbaceous Medicinals. If you can't find your favorite plant, check out the index on page 71, inside back cover. We've also made some other changes. We've updated the apple chart to include more categories such as cider characteristics. We've updated the two-page plant chart, now on pages 50–51. And as usual, we've added many new sidebars to let you know what we've been doing lately in our gardens and orchards.

I planted a new 40-tree orchard on our farm two years ago and have designed an integrated functional orchard system. Our goal is to minimize or eliminate all spraying—even organic. We have been focusing on companion plantings and attracting pollinators to the orchard. Look throughout the catalog for updates on how that's going. Check our website for more lists and for progress reports. Also, look for photos and updates on our Facebook page.



Please note our discount structure for large orders, our discount deadline, and the "Small & Light" shipping option for those who desire only items that are less expensive to ship than our giant boxes.

We do special orders. If you wish to buy large quantities of any item, larger or smaller plants than we are listing, rooted cuttings, or unusual items we're not listing, please write with particulars.

All of our trees are unconditionally guaranteed. If your tree or shrub does not grow to your satisfaction during the first growing season, please let us know! We'll send a refund or you can order a replacement the following year. We don't have a huge staff or a fancy set of offices. If we don't respond quickly, don't hesitate to remind us; we are in business to serve you. Enjoy the catalog!

Please share your experiences growing plants with us. Many of our selections originated from your suggestions. If you know of something growing near you we should be offering, or if you are interested in growing for us, please write to us. We welcome your comments, suggestions, and ideas.

John Bunker & Susan Kiralis

Our website: **www.fedcoseeds.com**
then click on Fedco Trees.

- **You may order online.**
- **Check product availability online.**

We also post color photos of most of our trees, shrubs and perennials and a wide range of information.

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Order Forms	**center**
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contact us:

by email at questions@fedcoseeds.com or
Fedco's NEW phone number 207-426-9900

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cover by Walker Fleming

We guarantee the quality of our trees and plants, and warrant that all items we offer are fully satisfactory.
If you are dissatisfied for any reason, we will replace the item or refund the purchase price.

Please inspect your order upon receipt and use the correction sheet to notify us immediately of any problems. Because good results depend upon weather, soil and cultural practices over which we have no control, we limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability. Claims for any defects in Fedco's products should be presented to Fedco as soon as possible after discovery. Failure to assert claims within 30 days after discovery renders this warranty null and void.

Ordering Information —

Order items from this catalog online or on a Trees 2013 **order form**, in the center of the catalog; you may submit as many pages as you need, either photocopies, forms downloaded from our website or printouts mimicking our format. To encourage you to participate in a group order and to order early, we give discounts.

Payment: we accept check, money order, Visa and MasterCard; payment must accompany all orders. We request that mailed orders under $25 pay by check or MO. Make your check out to Fedco. We will charge your card when we receive your order. We will bill or refund you for any adjustments as each order is completed.

- **Online**: go to **fedcoseeds.com** and click on Fedco Trees.
- **Mail** your order: **Fedco Trees, PO Box 520, Waterville, ME 04903-0520.** Keep a copy of your order for your records. To confirm receipt of your order, enclose a stamped self-addressed postcard.
- **We do not take fax or phone orders.**

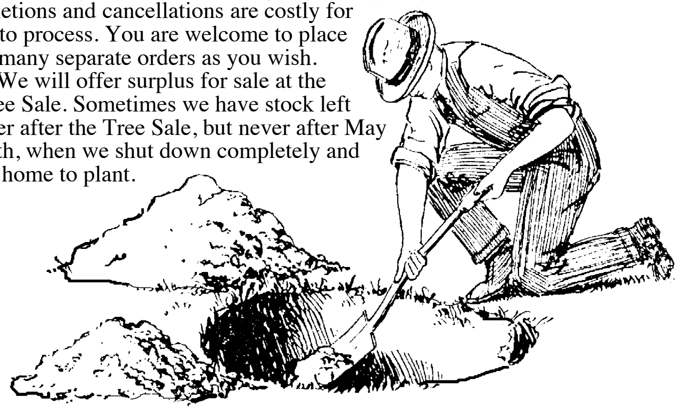
Group orders: By mail, send us at one time all your members' order forms with one payment and receive the individually packaged orders at one address. The group total earns the discount, if any. Use an additional order form for a group cover sheet. Keep a copy of each group member's order.

We also take group orders online. Group coordinators can click on Group Ordering on the Fedco Trees page for instructions.

Maine 5% sales tax: for **Maine residents** and **pickups** only**.**

We charge **$10 for handling if you adjust your order**. Additions, deletions and cancellations are costly for us to process. You are welcome to place as many separate orders as you wish.

We will offer surplus for sale at the Tree Sale. Sometimes we have stock left over after the Tree Sale, but never after May 15th, when we shut down completely and go home to plant.



Our Planting Guide
is incorporated into the catalog. **Save your catalog** for planting and cultural instructions. The catalog is also available online. We will not send planting guides with orders unless you request them.

Our Variety Descriptions –

All trees and plants are bare-rooted (except where noted), and even a large order can fit into a station wagon. All fruit and nut trees are well-rooted, 1/4-7/8" in diameter.

Fruit trees are grafted onto the hardiest standard-sized rootstocks available, except for our new apple offerings on dwarfing (size-controlling) rootstock. Standard trees are stronger rooted, hardier, and longer lived than dwarf or semi-dwarf trees. You can keep a tree on standard rootstock small by keeping it pruned.

For fruit trees and berries, the **exact dates of peak ripeness** will vary from place to place.

The **zone hardiness rating** will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone (chart on p. 71). Apple descriptions have minimum *and* maximum zones because apples typically need cold climates to produce the best fruit. All other plants list the coldest hardiness zone. Your own soil conditions, microclimate and topography will be equally important in determining the best varieties for you.

Please note **pollination** requirements for fruits, nuts and berries. Some plants are self-pollinating, others require a second plant for pollination, and others require a plant of a second variety.

We strive to give you accurate information about all the plants we sell. If you notice inaccuracies, please let us know.

John Bunker, Lauren Cormier and Jen Ries write the tree and shrub descriptions; Laura Childs and Susan Kiralis write tender bulb and perennial descriptions.

Discounts & Deadlines —

Discount deadline is **Friday, January 18, 2013.** Sorry, no volume discounts on later orders. Discounts apply only to orders either picked up or shipped to one address.

over $200	10% discount
over $400	15% discount
over $1000	20% discount

We fill all orders on a first-come first-served basis.

Final order deadline is **March 8, 2013.**

Shipping —

We ship most orders **via UPS beginning in early April**, continuing for about 10 days, according to planting zone. Our last regular shipping date is around April 12. We will have a special late shipping date around May 1. We do not ship at other times.

We strive to make our **shipping charges** fair, and it is a challenge. Since most packages we send with trees and shrubs are subject to expensive charges for oversized boxes and heavy weights, we have a category of small and light items that cost less to ship.

Regular UPS shipping charges: Shipping is a percentage of your adjusted total with the following minimums:

area	minimum	rate
New England	$18	12% over $150
NY, NJ and PA	20	12% over $167
all other states	25	12% over $208
Shipments to Alaska go via USPS Priority Mail:		
Alaska	$25	20% over $125

Please include a postal address. This rate also applies to anyone in the lower 48 who *requires* postal delivery.

Small & Light shipping: If you order **only** items with stock numbers beginning with L: perennials, bulbs, strawberries, rhubarb, hops, asparagus, horseradish, groundnut, books.

S&L to all states	$10	12% over $83

If you order **any** other items in addition to these, you **must** pay the regular shipping charges.

If you require a specific ship date during our regular shipping time, or late shipment around May 1, **we charge an additional $15** to cover our extra handling costs.

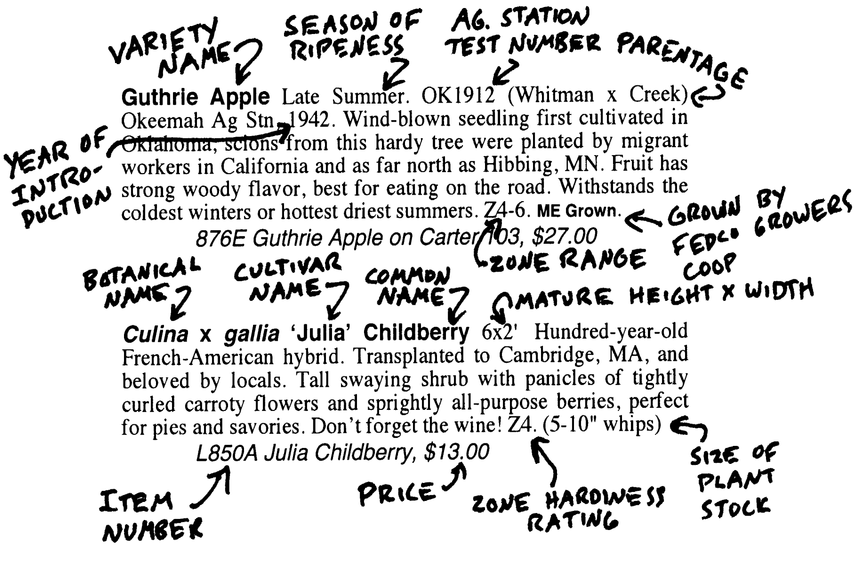
Pickup —

Pick up your order during our annual Tree Sale at our Hinckley Rd warehouse in Clinton, Maine. Friday and Saturday, April 26–27, are reserved for preorder customers. The second Friday and Saturday, May 3–4, we are open to the public. **Sale hours are 9:00–3:00** each day. We will send you a pickup reminder and map in April.

Substitutions —

When dealing with live plants, we can never be certain that we can fill your order. Our default mode is to substitute a similar variety, if something becomes unavailable, as most people prefer a similar tree or plant to a refund. On the order form, if you indicate you don't want any substitutions, we'll send a refund.

If you order apples, please indicate whether you will accept the varieties on similar rootstocks.



Guthrie Apple Late Summer. OK1912 (Whitman x Creek) Okeemah Ag Stn, 1942. Wind-blown seedling first cultivated in Oklahoma, scions from this hardy tree were planted by migrant workers in California and as far north as Hibbing, MN. Fruit has strong woody flavor, best for eating on the road. Withstands the coldest winters or hottest driest summers. Z4-6. **ME Grown.**

876E Guthrie Apple on Carter 103, $27.00

***Culina* x *gallia* 'Julia' Childberry** 6x2' Hundred-year-old French-American hybrid. Transplanted to Cambridge, MA, and beloved by locals. Tall swaying shrub with panicles of tightly curled carroty flowers and sprightly all-purpose berries, perfect for pies and savories. Don't forget the wine! Z4. (5-10" whips)

L850A Julia Childberry, $13.00

When you get your order: Immediate Care

When your new trees and plants arrive they are breaking dormancy and need to be planted as soon as possible. The longer they remain unplanted, the more stressed they become and the longer their recovery will take.

DO NOT ALLOW ROOTS TO DRY OUT AT ALL!!!

Trees & Shrubs: Planting Within 48 Hours

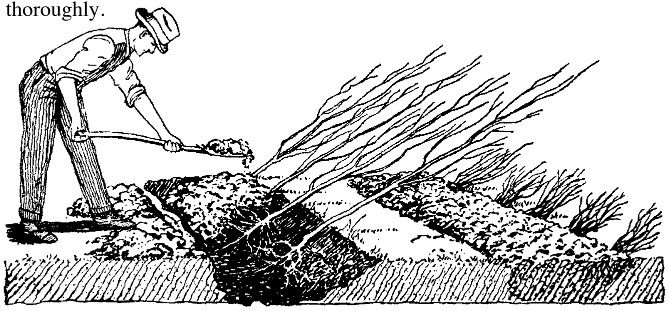
Leave the plastic wrapping around the root ball. Add some water to remoisten the packing material and store your trees/plants in a cool shaded place like a shed, barn or cellar. Avoid heat and sunlight.

Trees & Shrubs: If You Cannot Plant Within 48 Hours

You may keep plants for a week or two by following one of two temporary measures and continuing to water trees as they need it.

1) Remove the plastic wrap around the root ball. Store plants in a cool shaded place. Wrap the roots in wet shredded newspaper or sawdust, packing firmly to eliminate air pockets. Water thoroughly.

2) "Heel in" your plants. Dig a trench or turn back an appropriate amount of earth and bury roots; tamp firmly to remove air pockets. Water thoroughly.



Asparagus

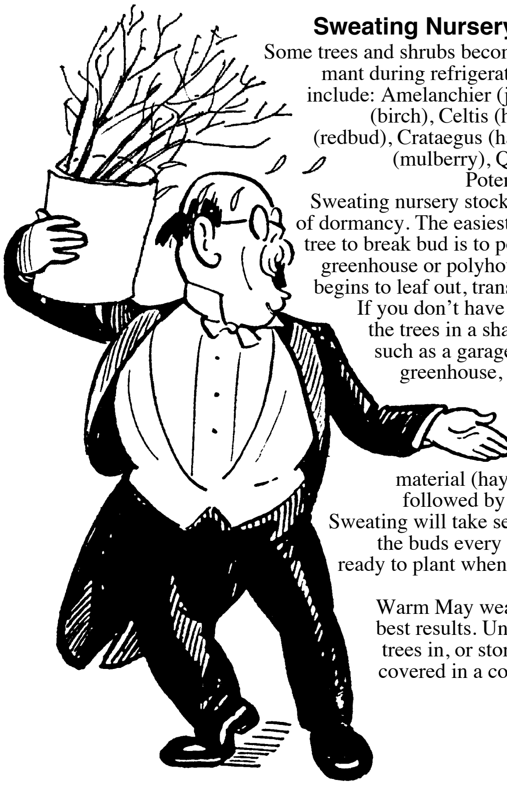
Open up asparagus roots and store dry and uncovered in a cool shaded place.

Strawberries

Refrigerate strawberry plants until you are ready to plant them.

Perennials

Open bags and check the stock immediately. Roots and crowns should be firm and pliable, not squishy or brittle. If they are slightly dry, add a little water or, if they are going to be potted up soon, soak the roots. Generally, a little surface mold is harmless and will not affect the plant's future performance. Pot up crowns and roots; do not plant directly outdoors. If you cannot pot the crowns up immediately, store them in a cool (35–40°) location for a short time. See page 70 for details.



Sweating Nursery Stock

Some trees and shrubs become extremely dormant during refrigerated storage. These include: Amelanchier (juneberry), Betula (birch), Celtis (hackberry), Cercis (redbud), Crataegus (hawthorne), Morus (mulberry), Quercus (oak), and Potentilla (cinquefoil).

Sweating nursery stock ensures breaking of dormancy. The easiest way to force any tree to break bud is to pot it and set it in a greenhouse or polyhouse. After the tree begins to leaf out, transplant it outdoors. If you don't have a greenhouse, lay the trees in a shady place, 45–70°, such as a garage, basement, barn, greenhouse, or outdoors in the shade. Cover the whole plant with very damp packing material (hay, newspaper, etc.) followed by a sheet of plastic. Sweating will take several days; check the buds every day. The trees are ready to plant when the buds begin to swell.

Warm May weather will give the best results. Until then, heel your trees in, or store them with roots covered in a cool barn or garage.

TREE PLANTING AND CARE

Choosing a Site for Fruit Trees and Berries

The best sites for fruit crops have well-drained fertile soils, protection from wind, good air drainage, and full sun. A gentle slope and six to eight hours of full sun per day is ideal. Good air flow will moderate frosts and fungal disease. If possible, avoid "frost pockets."

Sunny south- or west-facing slopes are not advisable for less hardy varieties. These slopes tend to warm up before the danger of frost has passed. Trees may flower prematurely and then be damaged by frost, causing loss of fruit. South and west slopes may also have widely fluctuating early spring temperatures that can damage less hardy trees.

Soil pH for fruit trees should be between 5.5 and 8.0, towards the lower end for apples, the higher end for peaches, and in the middle for others. Fruit species have optimal space requirements. See chart below.

Do not plant trees where power lines will interfere with them.

Fall Preparation or Spring Initial Feeding for Fruit Trees

If you're interested in preparing locations for your trees this fall, or for feeding newly planted fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic, and moderate to low in calcium and phosphorus. You can apply this mix as a mulch to your newly planted tree in the spring. To order any of these products, refer to the Organic Growers Supply section of our Seed catalog or website.

Deluxe Method

Without digging the hole, cover an area 4–6' in diameter with:

5 lbs gypsum or Hi-Cal lime
5 lbs colloidal phosphate (short-term calcium and phosphorus)
5 lbs azomite (long-term minerals and trace minerals)
5 lbs granite meal or greensand (for improved soil texture)
2–3 lbs menafee humates (aids mineral and rock-powder breakdown)

For building high levels of humus, also add:

2 lbs alfalfa meal
2 lbs bone char or bone meal
2 lbs kelp meal
2 lbs blood meal
100 lbs compost (1/8 yard)
BioDynamic preps (optional)

Cover with a 3–4" mulch of lawn clippings, leaves or "brush" chips, which will smother the sod, conserve moisture, prevent leaching, and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the backfill.

Simpler Method

Forgo the soil amendments and simply pile 1–2 wheelbarrow loads of compost on each planting-hole site. If you live by the ocean, add a couple of wheelbarrows of seaweed. Then cover with mulch. In the spring, pull back the mulch and plant your fruit tree, incorporating the compost into the hole as you dig.

Feeding older fruit trees

Cover the surface of the ground out to the drip line with the same materials listed above. For larger trees (five years and older) increase the mineral amount to 10–15 pounds each. For ancient trees you can add up to 25 lbs of each mineral in a ring beneath the drip line. Mulch as described above.

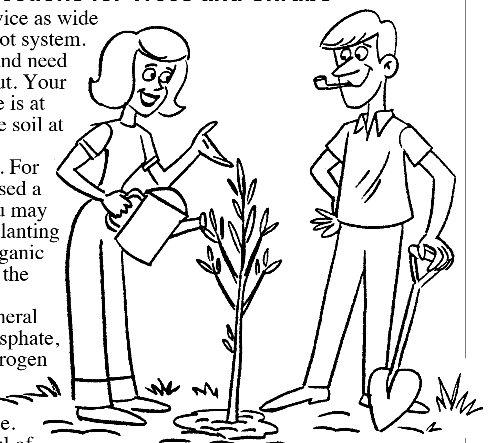
Plant Spacing of Fruit Trees and Berries

	between plants	between rows
Apples, Dwarf	7-8'	15'
Apples, Semi-dwarf	15'	15'
Apples, Standard	25–30'	25–30'
Asparagus	1–2'	4'
Blackberries	3–4'	6–12'
Blueberries, highbush	3–6'	8–10'
Blueberries, lowbush	1'	1'
Filazel	4'	hedge
Grapes	8'	8–10'
Kiwis	10'	10'
Nut trees - orchard	35'	35'
Nut trees - forest	20'	20'
Pears, Asian Pears	20'	20'
Raspberries	2'	6–12'
Stone Fruit	15–20'	15–20'
Strawberries	see instructions, p. 31	
Sweet Cherries	25'	25'

The basics of tree care are outlined here and are designed to get you going. Obviously we can't tell you everything you need to know in a few pages. Additional information such as location and soil preferences of specific plants is in the item descriptions. Reading, observation, trial and error, and talking with other growers and with extension agents can expand your knowledge of trees and shrubs. A soil test is useful in determining the specific needs of your site.

Consult the Fedco Seeds catalog, Organic Growers Supply section, book list for some recommended reference books, or look for information on the internet. There are many useful links at our website, www.fedcoseeds.com.

General Planting Directions for Trees and Shrubs



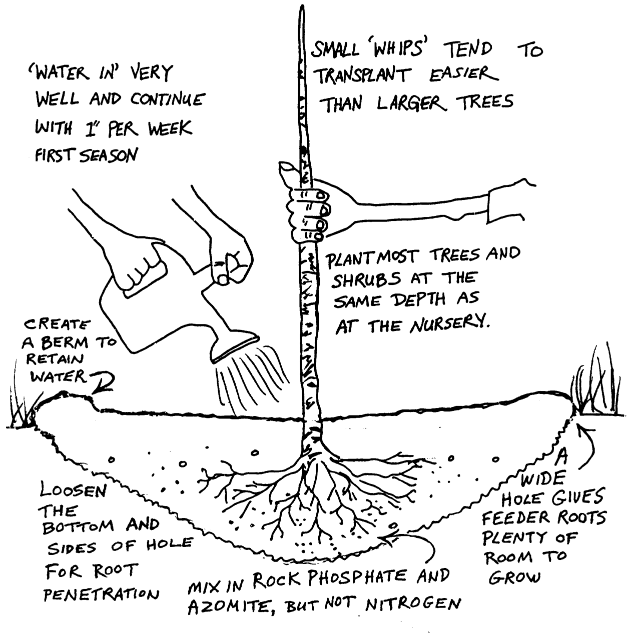
Dig a large hole, at least twice as wide and about as deep as the root system. Most roots grow laterally and need plenty of room to spread out. Your trees will benefit if the hole is at least 3' wide. Loosen up the soil at the bottom of the hole and especially around the sides. For fruit trees, if you haven't used a deluxe fall preparation, you may add a 3-pound bag of our planting mix (available from the Organic Growers Supply section of the Fedco Seeds catalog), or well-aged compost and mineral fertilizers such as rock phosphate, but not manure or other nitrogen sources. We add about a coffee-can of rock phosphate for each fruit tree. You may also add a handful of azomite. Replace the topsoil around the roots where it will do the most good. If you situate non-fruit trees according to their requirements, there is no need to add any supplements to your soil. This is the best way to ensure that your plants will thrive for many years.

For best results, plant on cool cloudy days in the early morning or late afternoon. Soak deciduous trees and shrubs for up to 24 hours before planting. Keep the roots from drying out. Even a few minutes in the sun and breeze can kill a tree or shrub. Keep them in a bucket of water as you plant.

Generally, you should plant trees and shrubs at the same depth that they grew in the nursery. You should be able to see a "dirt line" or a change in bark color indicating nursery depth. Spread the roots out as you set the trees in the holes. Make a mound at the bottom of the hole over which to spread the roots. Give your trees plenty of water to "puddle in" as you plant. Wiggle the trunk as the water seeps in to ensure that the roots are settled in with no air pockets. Leave a berm around each tree so water will seep in and not run off. Keep them well watered throughout the first summer. They require the equivalent of 1–2" rain per week. A good soaking is effective; sprinkling is not.

Initial Pruning

Prune dead or injured branches and roots on all trees and shrubs. Further pruning of most trees is not necessary at planting time. Do not prune tops or prune or bend tap roots of nut trees. General information on pruning begins on p. 48. Conifers (p. 48) and roses (pp. 53) require special pruning.

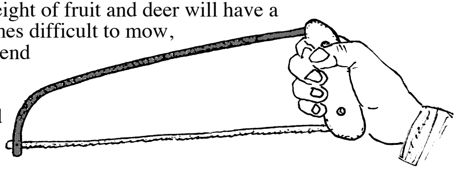

'WATER IN' VERY WELL AND CONTINUE WITH 1" PER WEEK FIRST SEASON
SMALL 'WHIPS' TEND TO TRANSPLANT EASIER THAN LARGER TREES
PLANT MOST TREES AND SHRUBS AT THE SAME DEPTH AS AT THE NURSERY.
CREATE A BERM TO RETAIN WATER
A WIDE HOLE GIVES FEEDER ROOTS PLENTY OF ROOM TO GROW
LOOSEN THE BOTTOM AND SIDES OF HOLE FOR ROOT PENETRATION
MIX IN ROCK PHOSPHATE AND AZOMITE, BUT NOT NITROGEN

Pruning Fruit Trees

Avoid pruning young trees except to establish a basic shape. Pruning young trees delays bearing. On apple and pear trees, leave the central leader alone and let it grow. It's okay to cut off extra trunks and large branches. Always remove suckers or root shoots from fruit trees. On peaches and plums, the trees may want to develop 2–4 leaders, or an open-vase shape. Always prune just above a good strong bud that faces a direction you'd like your plant to grow.

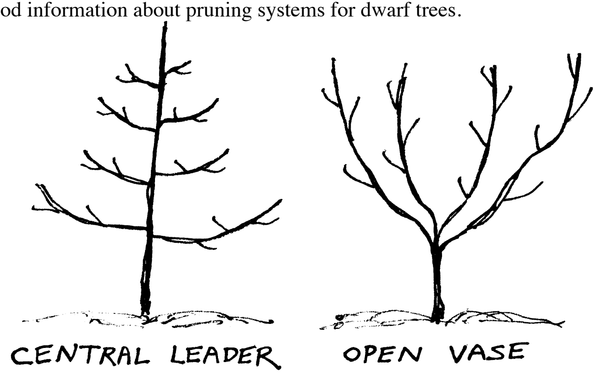
Pruning standard or semi-dwarf apple trees

Think seriously about establishing the long-term shape of your apple tree when it is young. How you shape your tree is largely a matter of personal preference. We want the lowest scaffold (branch layer) to be very wide to collect as much sun as possible. If too low, these long branches will rest on the ground under the weight of fruit and deer will have a field day. Also, it becomes difficult to mow, mulch, etc. We recommend training standard and semi-dwarf apple trees to have the first scaffold at about 3–6' high.



Pruning and caring for dwarf apple trees

Dwarf apple trees require different pruning and cultural practices. They are more senstive to drought and soil deficiencies. Give them good soil and plenty of water. Stake your tree with a 10' stake. Allow the leader to grow *unpruned* to 10 feet. Tie it at the very top of the stake and allow it to bend on its own above that height. Prune all growth below about 24". Your first scaffold should be at about that height. Let those lowest branches grow unpruned as wide as they wish. Prune all other branches back every year to about 4–6", pinching them back during the summer when necessary. Remove any branches (except the bottom tier) that grow to be more than half the diameter of the trunk. Remove all branches within 12" of the top. Your objective is to have a wide "bottom" with a lot of young growth above it and an unpruned top. This will stunt the vegetative growth while encouraging a lot of fruit at a young age. If you poke around on the internet, you'll find good information about pruning systems for dwarf trees.



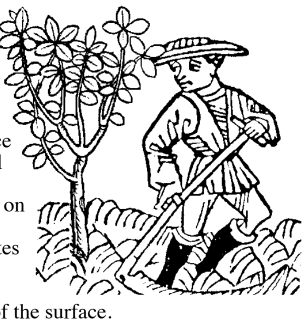
Once the tree begins to bear you will want to prune annually. Good pruning brings sunlight to all parts of your tree. Maximum sunlight encourages more and higher-quality fruit. Sunlight also encourages fruit buds to form for next year's crop. A well-pruned tree will produce larger fruit and will tend toward more annual bearing. Good pruning discourages fungal diseases and promotes greater spray penetration. There's an old saying that a bird should be able to fly through your fruit tree. Any good book on growing fruit trees will provide you the information you need. Pruning is not difficult to do and will make a huge difference.

Most pruning should be done in late winter or early spring. We recommend a good-quality pair of hand shears and a lightweight pruning saw. You may also wish to invest in long-handled loppers, a pole pruner or a pole saw. Keep your pruning tools sharp for smooth, clean cuts.

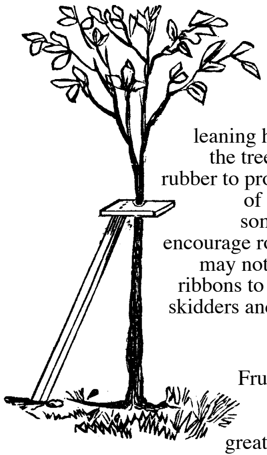
Consult old and new books as well as orcharding articles and develop a system that works for you.

Weeping crabapples require special pruning. See p. 47 for instuctions.

Mulch



Keep weeds and especially grass away from new trees and shrubs. Apply a 2–4" mulch of composted material, leaves, wood chips or hay out as far as the drip line. A $^1/_2$–1" topdressing of alfalfa meal beneath the mulch may substantially reduce transplant shock. Keep mulch back several inches from the tree trunks. We lay down cardboard or newspaper and spread mulch on top of it. Mulch encourages earthworms, holds moisture, keeps down weeds, insulates against excess heat and cold, aerates and loosens soils, builds humus and fertilizes feeder roots, 90% of which are within 6" of the surface.

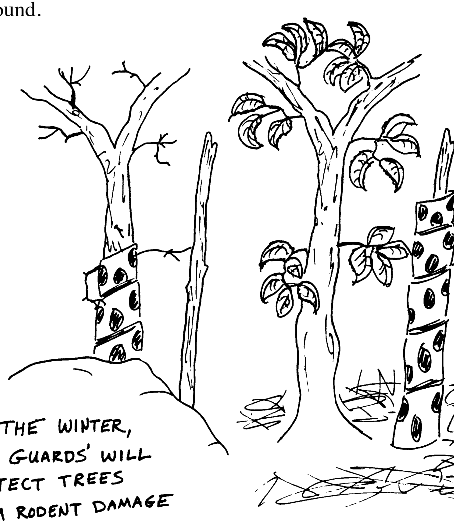


Staking

Newly planted standard-sized fruit trees and ornamental trees seldom need staking. Dwarf trees require staking. See p. 5 for dwarf apple details. Semi-dwarfs may require staking. If your tree is in a very windy site or develops a leaning habit, staking may help. Drive a stout post near the tree. Wrap the tree trunk with a scrap of burlap or rubber to protect against abrasion. Secure the wrapped part of the tree to the post with string or wire. Tie tree somewhat loosely, as a slight rocking motion will encourage rooting. Once roots are well anchored, the stake may not be needed. Mark small trees with a stake with ribbons to warn operators of lawn mowers, tractors, cars, skidders and skateboards.

Mouse/Vole Protection

Fruit trees and ornamentals are sometimes girdled by mice or voles eating the bark. Girdling will usually kill the tree or shrub. The danger is greatest in winter. Keep the grass mowed in the fall and remove large mulch piles from near the trunks. Rodents like to nest in hay more than in chip mulches. A wrap of window screening or a plastic spiral tree guard will protect your tree from being girdled. If you use screening or plastic spiral tree guards on apple, quince or crabapple trees, remove them from April to October, as they attract borers if left on the tree in the summer. You can leave plastic spiral tree guards on most other trees year round.

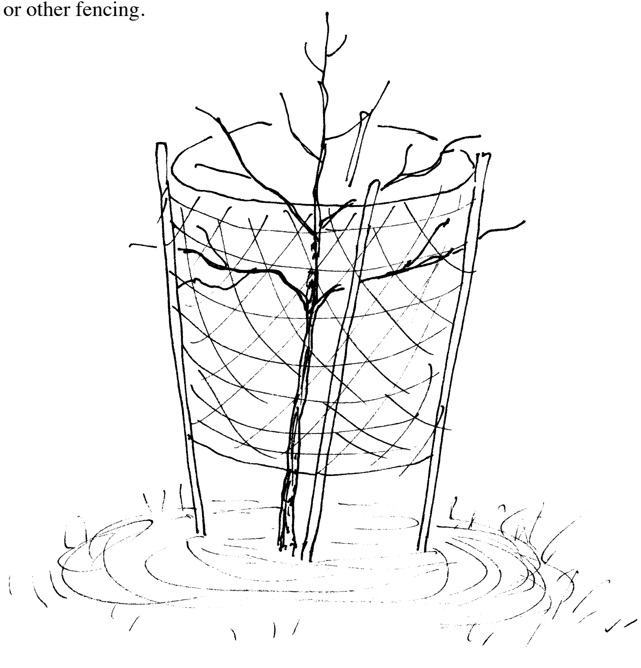


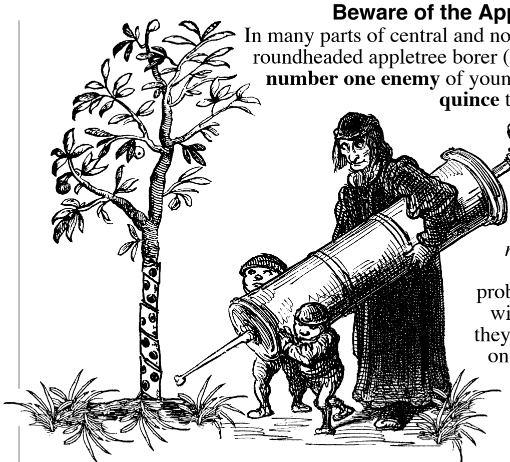
BUT, BE SURE TO REMOVE THEM IN THE SPRING AS THEY ATTRACT BORERS ON APPLES, QUINCE AND CRABS

IN THE WINTER, 'TREE GUARDS' WILL PROTECT TREES FROM RODENT DAMAGE

Oh Dear, Deer!

The best deer protection is a collie in the yard. If you don't have a dog or if your orchard is too far from the house, an 8' sheep fence will work. Some people have good luck with electric fences. Small protective fence enclosures can be made by circling your tree with a cylinder of chicken wire or other fencing.



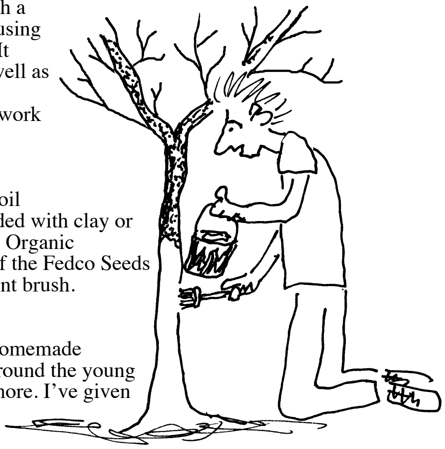


Beware of the Apple Borer!

In many parts of central and northern New England the roundheaded appletree borer (*Saperda candida*) is **the number one enemy** of young **apple**, **crabapple** and **quince** trees. If you are growing young apple trees in these locations, you must protect your trees from this pest. Farther south and north the borer *may* not be a pest. If you don't know if they are a problem in your area, check with any grower near you: they'll know. Otherwise, err on the side of caution. The borer does not endanger other fruit trees or ornamentals. The borer beetle lays its eggs under the bark near the base of the tree. The developing larvae tunnel through the wood, eventually weakening the tree until it crumbles and falls over. The trouble sign is small deposits of orange sawdust, called frass, at the base of the tree, usually appearing in June or July. Left unchecked, borers usually mean death for your trees.

Borers thrive in shady moist warm environments. Keep grass back at least 6" from the tree base. Activity is most prevalent in June and July. Keep a lookout for the frass. Locate the hole or soft spot in the trunk and insert a wire until you locate and kill the larvae. Cut away soft, spongy pockets with a knife. Even serious carving is less harmful to the tree than leaving the larvae alive inside.

After years of experimentation, I think that **painting is the best deterrent**. I've tried a number of recipes and this is my favorite. It's easy and requires no hard-to-find ingredients. Mix white *interior* latex paint with joint compound. (The stuff you smear on sheet rock joints and nail holes—you can buy a small tub at any hardware store. Some exterior paint formulations contain ingredients that can harm the underlying phloem.) The consistency should be thick but still quite easy to paint, not glob on. Repaint periodically or each year as needed. This mix will help deter borers. It will also make for easy detection of any infestation you may have. Look for the frass! Using the paint method, you will also need to put some sort of screen or plastic rodent protector around the trunk during the winter months.

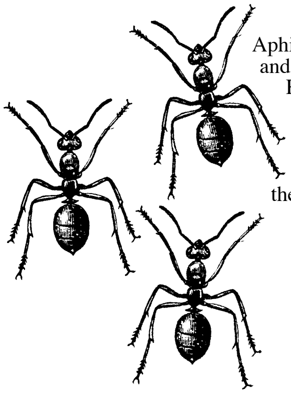


We are experimenting with a borer-protection formula using more benign ingredients. It doesn't last or adhere as well as the paint-joint compound mixture, but it appears to work fairly well.

2 qt quick lime
4 gal milk
1 gal boiled linseed oil

Mix well. Thicken as needed with clay or Surround (available in the Organic Growers Supply section of the Fedco Seeds catalog). Apply with a paint brush. Reapply as needed.

For many years I used a homemade "screen saver" wrapped around the young trees to deter borers. No more. I've given up and switched to the paint method. I recommend you do too.



Aphids and ants

Aphids can do a lot of damage to apple trees and they make the young leaves look gross. Here's an easy solution. Wrap a piece of stiff paper about 6" wide around the trunk about a foot or two off the ground. Tape this "sleeve" to itself but not to the tree. Smear Tanglefoot on the paper. In a day or two no more aphids.

Join Fedco as a Consumer Member-Owner!

We are pleased that consumer member equity deposits last year financed more than $40,000 of the cost of our new Trees warehouse and office space. At Fedco Trees, finally enjoying the luxury of adequate operating space, we expanded our repertoire to include dwarf and semi-dwarf fruit trees and successfully filled a record order last spring. We capped our success with our biggest annual tree sale ever.

We are thrilled that our new facility brings enhanced retail opportunities, and we look forward to even greater success in the years ahead.

We need your help to reach our 2-year goal of 1,000 member-owners. Join and enjoy the benefits of a 1% discount on all orders from all our divisions and the good feeling that comes from supporting our cooperative enterprise and owning a share in a great organization. What better time than now to celebrate the United Nations' International Year of the Cooperative?

We are asking for $100 membership equity, or if this would prove a hardship, there is a $25 option, refundable at any time upon request. Please note that membership is by household (only one membership per household, please) or by farm or organization.

Join the 448 member-owners from 27 states and the District of Columbia who are helping write the next chapter of our enduring success!

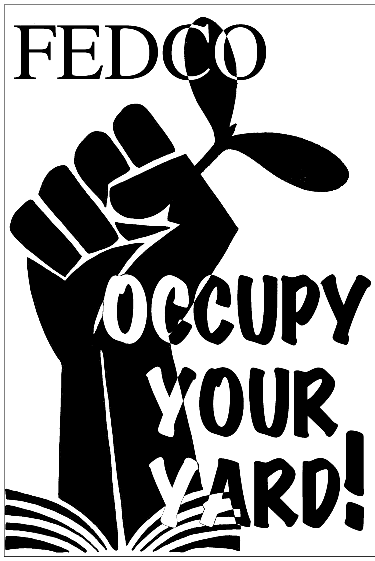
CR Lawn, President, Fedco Seeds Inc.

Why Join Fedco as a member?

- Membership = ownership. Own a piece of Fedco!
- Your membership equity helps finance our new facility, reducing our interest expense.
- Enjoy benefits such as a 1% discount on all your orders, and member-only specials!
- Happy with our products, prices and catalogs? Help us to endure and thrive for many years to come! Keep that humor, those bad puns and occasional rants coming!
- Support our politics around food policy and seed issues? Help us fulfill our mission!

If you have any questions
please email us at
questions@fedcoseeds.com
or call 207-426-9900.

FEDCO



Yes, I want to join Fedco as a consumer member-owner!

Enclosed is a check for my refundable membership deposit of $100.
Please make membership certificate out to:

Name____

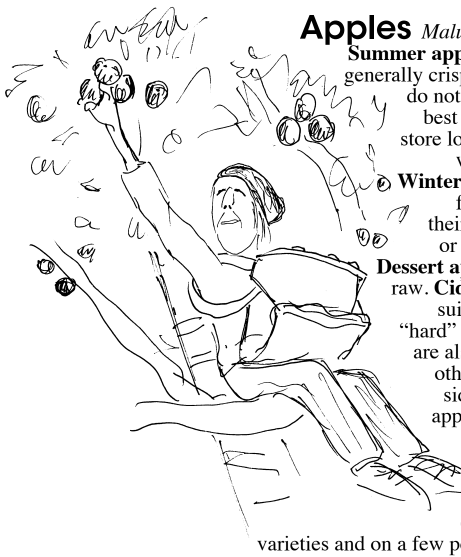
Address____

City_________________________________ St______ Zip__________

Customer # (if you know it)____________________

Email address____

PO Box 520, Waterville ME 04903



Apples

Malus spp. Some definitions: **Summer apples** ripen in summer, are generally crisp only for a short period, do not store well, and are often best for cooking. **Fall apples** store longer and are useful for a wide variety of purposes. **Winter apples** ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage. **Dessert apples** are delicious eaten raw. **Cider apples** are especially suited to making fermented "hard" cider. Some cider apples are also good dessert fruit, but others are not. See the cider sidebar on page 15 and the apple chart on the next page for more information. **Subacid** means tart! **Russet** or **russeting** is a skin texture (fairly common on apple varieties and on a few pears and potatoes) which looks and feels somewhat like suede. **Bloom** is a naturally occurring dust-like film on the skin of some varieties of apples, plums and grapes.

Each variety has a **climate range** where it will thrive and produce its best fruit. At the end of each apple description we list a range of zones. For example, Z3-4 signifies that this apple will reach perfection in Zones 3 and 4 and that we don't recommend it farther south even though it would be plenty hardy. Z4-6 means that this apple will reach perfection in Zones 4, 5 or 6. Although last year we received reports from southern California that some of our rarest Maine apples are thriving in Zone 10A, we still suggest that you use this guide to select apples most appropriate to your area.

Choosing a variety: not every variety is right for you. **All-purpose** apples are just that. They are good for a bunch of jobs. If I were planting just one tree, I'd start there. However if you're a history buff, consider the historical varieties and maybe plant one that originated nearby. If you don't eat many apples but love pies, go for the pie apples. If you're a dessert connoisseur, skip all the others and go for the highly flavored dessert varieties. Some are strictly for cider. Some are great to put out at the camp for summer use. Some are perfect for those who want fall fruit but don't have winter storage facilities. Others keep all winter and into the following summer. Read the descriptions and consult the chart. If you have a question about a specific variety, drop me an email: john@fedcoseeds.com. I'll try to help!

Rootstocks: This year we will once again offer most of our apples on standard Antonovka seedling rootstock. We also offer several varieties on dwarf and semi-dwarf rootstocks. See below for more information about these "size-controlling" rootstocks and a list of available dwarfs and semi-dwarfs. Variety descriptions follow, beginning page 10.

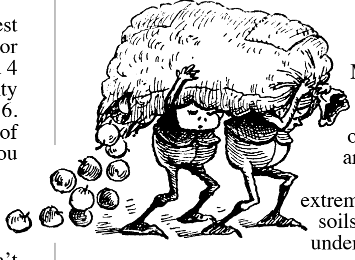
Some people wonder why we have almost exclusively offered trees on standard (full-sized) rootstock over the years. Standard trees have deep, substantial—and therefore hardier—root systems. By selecting the varieties appropriate to your district, grafted on standard rootstock, you may well be planting a tree that will be picked by your grandchildren's grandchildren. Standard trees will grow to be large, but you can keep them trimmed. Our largest trees are now about 30 years old. The tallest are still well under 20'.

Although standard-sized apple trees may be planted as close as 10–15' apart, they were typically planted 30' apart in 19th-century orchards. We generally plant standard trees 20–25' apart with good results.

Apple trees are adaptable to a variety of soils and climates, though they prefer well-drained fertile soil. See pages 4–5 for information on soil preparation and planting. Varieties bearing annually are noted; others normally bear every other year. With diligent annual pruning and thinning, most apples will produce an annual crop, one heavy, the next light.

All apple trees require a second variety for pollination, but any apple or crabapple within a quarter mile will probably do. (3-6' trees)

Dwarf and Semi-dwarf Apples



After an enthusiastic response last year, we continue to offer an assortment of dwarf and semi-dwarf apples on three rootstocks: Bud 9, M111 and Bud 118. Each has great advantages for some growers, but beware! These rootstocks also have their limitations. Please read on and decide if they are what you want. If you are uncertain, stick with the good old standards. Trees on Antonovka (standard rootstock) are extremely rugged, more tolerant of drought and poor soils, very long-lived and more capable of thriving under a regime of benign neglect.

Bud 118 semi-dwarfing rootstock produces a tree that is about **85–90%** of standard size or even larger. Sometimes Bud 118 trees are called "semi-standards" or even standards. Plant about 20–25' apart. Considered to be more precocious than standards, and probably more productive. Very hardy, though not as hardy as Antonovka.

118B Frostbite on Bud 118
119B Golden Russet on Bud 118
123B Grimes Golden on Bud 118
131B Liberty on Bud 118
135B Northern Spy on Bud 118
136B Pound Sweet on Bud 118

M111 semi-dwarfing rootstock produces a tree that is about **65–80%** of standard size. Sometimes M111 trees are called "semi-standards." You can plant them closer together than standards, about 15–25' apart. M111 may not be more precocious than trees on standard. However it will likely be more productive. It has a relatively shallow spreading root system, does well in light soils, and is relatively drought tolerant. It is less well-rooted, not as long-lived, and not as cold-hardy as varieties grafted onto Antonovka.

102C Ashmead's Kernel on M111
104C Baldwin on M111
105C Black Oxford on M111
107C Calville Blanc on M111
113C Cox's Orange Pippin on M111
116C Enterprise on M111
117C Esopus Spitzenburg on M111
121C Gravenstein on M111
127C Honeycrisp on M111
128C Hudson's Golden Gem on M111

Bud 9 dwarf rootstock produces a tree that is very small. It is a true dwarf. This makes it extremely easy to spray, prune and pick. It requires way less space in your yard and will fruit at a very early age. You can plant trees 5–10' apart. On the other hand, it will not live nearly as long as those grafted onto Antonovka. It will be less well-rooted, more susceptible to drought and have more difficulty accessing soil nutrients. Trees should be staked for support. Hardy, but not nearly as hardy as Antonovka.

123D Grimes Golden on Bud 9
131D Liberty on Bud 9

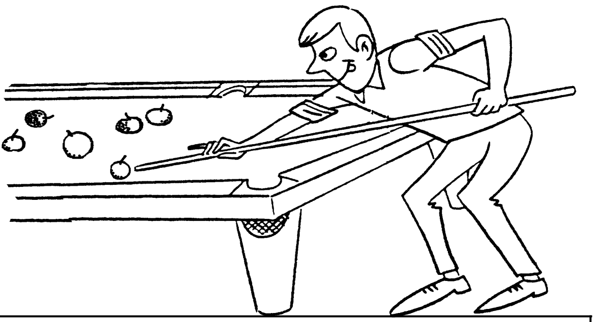
Scionwood

Download the order form from our website or request it with a SASE.

No online ordering for scionwood.

Order deadline is Feb 22, 2013, for shipment around March 20. See p. 21 for more information.

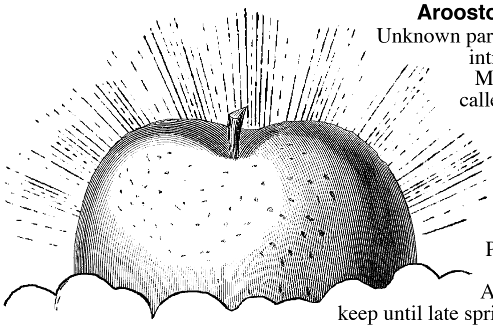
Aim for the right apple!



Item	Name	Zones	Season	Best apples for								
				All-Purpose	Fresh Eating	Storage	Cooking	Sauce	Pies	High Flavor	Sweet Cider	Hard Cider
101	Aroostook Sunset	3-4	winter		●	●						
102	Ashmead's Kernel	4-7	winter			●				●		
103	Ashton Bitter	4-7	fall									●
104	Baldwin	4-6	winter	●	●	●	●		●		●	●
105	Black Oxford	4-6	winter	●	●	●	●	●	●		●	
106	Blake	4-6	fall		●		●					
107	Calville Blanc	4-7	fall	●			●		●	●	●	●
108	Campfield	4-7	winter			●						●
109	Canadian Strawberry	4-6	fall		●					●	●	
110	Centennial	3-5	fall		●		●					
111	Chestnut	3-5	fall		●		●	●				
112	Cortland	4-6	fall	●	●		●					●
113	Cox's Orange Pippin	4-6	fall		●					●		
114	Dabinett	4-7	fall									●
115	Duchess of Oldenburg	3-5	summer	●			●	●	●			
116	Enterprise	4-7	winter		●	●						
117	Esopus Spitzenburg	4-7	winter	●	●	●	●			●	●	●
118	Frostbite (MN 447)	3-5	fall		●	●				●		
119	Golden Russet	4-6	winter		●	●					●	●
120	GoldRush	5-8	winter		●	●				●		
121	Gravenstein	4-8	summer	●	●		●		●			
122	Gray Pearmain	4-6	fall		●	●				●		
123	Grimes Golden	4-7	fall	●	●	●	●	●	●	●		
125	Harrison	4-7	fall									●
126	Hewe's Virginia Crab	4-7	fall									●
127	Honeycrisp	3-5	fall		●	●				●		
128	Hudson's Golden Gem	4-8	fall		●	●				●		
129	King of Tompkins County	4-6	fall	●	●		●					
130	Kingston Black	4-7	fall									●
131	Liberty	4-6	fall	●	●		●				●	
132	Mantet	3-5	summer		●		●					
133	McIntosh	4-6	fall	●	●		●	●				
134	New Brunswicker	3-5	summer				●	●	●			
135	Northern Spy	4-6	winter	●	●	●	●	●	●		●	●
136	Pound Sweet	4-6	fall				●	●				
137	Priscilla	4-6	fall		●							
138	Redfield	4-6	fall					●	●			●
139	Reine de Pomme	4-7	fall									●
140	Roxbury Russet	4-6	winter	●	●	●	●			●	●	●
141	Sand Hill	4-6	fall	●	●		●					
142	St. Edmunds Russet	4-6	fall		●					●	●	
143	Smith Cider	5-8	fall	●	●		●					●
144	Stoke Red	4-7	fall									●
145	Striped Harvey	4-6	fall	●								
146	Sweet Sixteen	3-6	fall	●	●	●	●	●		●		
147	Thompson	4-6	summer	●			●	●				
148	Tolman Sweet	4-6	fall	●	●		●	●				
149	Trailman	3-5	summer		●			●		●		
150	Wealthy	3-5	fall	●	●		●	●	●			●
151	Wickson	4-6	fall		●					●		●
152	Williams Pride	4-6	summer		●							
153	Winekist	4-6	summer		●			●			●	
154	Winesap	4-7	winter	●		●			●		●	●
155	Wolf River	3-5	fall				●	●				
156	Yarlington Mill	4-7	fall									●
157	Zestar	3-5	summer		●					●		

Standard Rootstock

We offer most apple varieties on standard-sized Antonovka rootstock. Where *A* follows the item number in this apple section, the variety is on standard rootstock.



Aroostook Sunset Winter. Unknown parentage. Silas S Stiles introduction, Mapleton, ME, before 1870. Also called **Aroostook**. Small roundish conic light-golden russet fruit has fine-grained and sweet flesh. Resembles the famous variety Pomme Grise. Unlike Pomme Grise, Aroostook Sunset will keep until late spring or even into July. Said to be a seedling of “Greening” most likely referring to “Rhode Island Greening” but possibly any number of other large green apples. Rediscovered in Mapleton with the help of Leslie Gardiner and Gary Kazsas. It would be highly unlikely to find trees any where outside of northwestern Maine, up near Ashland and Presque Isle. Now on trial in our central Maine orchard. Vigorous and productive tree. Z3-4. **ME Grown**.

101A Aroostook Sunset, $25.00

Ashmead’s Kernel Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not for those who like mild sweet apples. Each bite is an intense aromatic sting of sharp and sweet, with hints of other indescribable but absolutely wonderful tastes and aftertastes. This apple could be served as dessert at the fanciest gathering of your most discerning friends. Beginning to show up here and there in commercial orchards. A good sharp addition to your hard cider. Medium-small oblate and lopsided orange-gold-green russet fruits. Ripens in October. Store until New Year’s to reach perfection. Keeps until they’re all gone. Moderately vigorous tree may bear irregularly, but it’s worth the wait. Somewhat scab resistant. Blooms midseason. Z4-7. Both are **ME Grown**.

102A Ashmead’s Kernel, $25.00

102C Ashmead’s Kernel on M111 rootstock, $27.00

Ashton Bitter Early Fall. Full bittersweet cider apple. (Dabinett x Stoke Red) Long Ashton, England, 1947. Originally introduced by GT Spinks, Long Ashton’s plant breeder. Resurrected from an old trial orchard and planted extensively in recent years. Medium-sized round opaque-orange-yellow fruit, blushed and striped with rich red. Very juicy and very astringent. A blend of half Ashtons and half a mix of Golden Russet, Nodhead, Stark and Golden Delicious produced a really nice clear amber dry tasty ever-so-slightly bitter cider in our 2005-6 trials. I was impressed. Ripens in early fall but we pressed in late October and the fruit was fine. Blooms midseason. Z4-6. **ME Grown**.

103A Ashton Bitter, $25.00

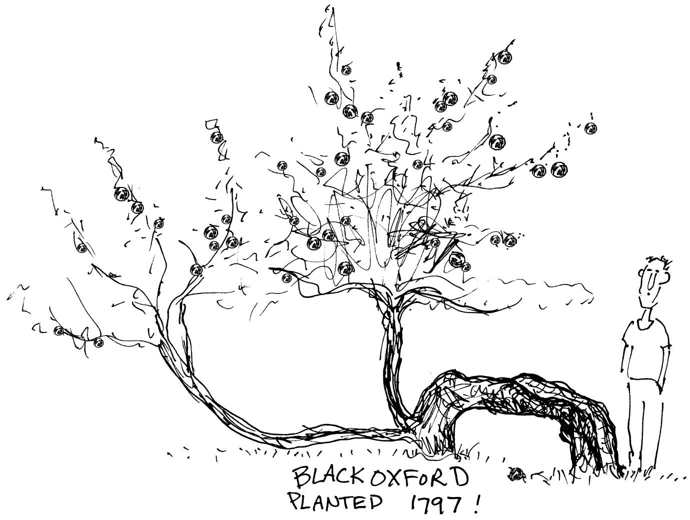
Baldwin Winter. Wilmington, MA, about 1740. Also called **Butters Apple** or **Woodpecker**. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. Scions from the original tree were grafted and growing in Maine by 1810, and by 1850 Baldwin was the standard all-purpose home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit. Light yellow skin almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and keeps till spring. Makes top-quality hard cider, blended or alone. Vigorous adaptable hugely productive long-lived healthy tree. When grower Dave Gott asked the late renowned entomologist Ron Prokopy his opinion of Baldwin, Ron replied that the apple is “not practical commercially due to biennialism but the *only* apple that is both disease and insect resistant.” Massachusetts’ most famous apple where it grows to perfection. Also extremely nice here in central Maine. Hardiest in well-drained upland and north slopes. Blooms early to midseason. Z4-6. Both are **ME Grown**.

104A Baldwin, $25.00

104C Baldwin on M111 rootstock, $27.00

When will I get fruit?

That, as they say, is the $64,000 question. In fact, it’s the question we get asked more than any other. Unfortunately, it is impossible to answer with any certainty. But we can say a few things. If you treat your young trees with some TLC you will almost certainly get fruit sooner than if you do nothing. Commit yourself and your family to not moving. After all, if you don’t stay put, you’ll *never* get any fruit. But stay in one place and before you know it, you’ll see flowers and then apples, pears, plums, cherries and all the rest. For the really impatient, we recommend peaches. They tend to fruit at a much younger age than other tree fruit. Sometimes in the third, or even second, year. If you hope to get apples in 3–4 years, plant dwarfs. 4–6 years for semi-dwarfs. Standard apples as well as most pears, cherries, apricots and plums should fruit in 5–9 years.

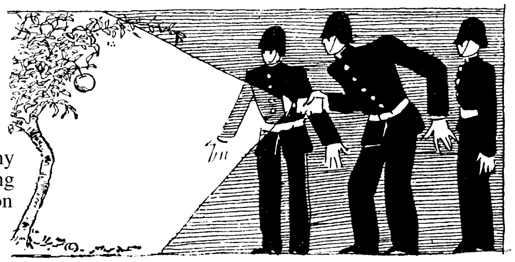


Black Oxford Winter. Unknown parentage. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has been making a huge comeback in the last 20 years. Our best seller until Honeycrisp came along. Medium-sized round fruit, deep purple with a blackish bloom. From a distance you might think you’d discovered a huge plum tree. Last summer I revisited the Hallowell, Maine, tree planted by Benjamin Vaughan in 1799. Still hanging in there! Excellent pies, superb late cider. Leave the skins on for a delightful pink sauce. Best eating late December to March. They get sweeter and sweeter as the months go by. Good cooking until early summer. Some insect and disease resistance. Unusual light pink blooms, early midseason. Z4-5. Both are **ME Grown**.

105A Black Oxford, $25.00

105C Black Oxford on M111 rootstock, $27.00

Blake Fall. Unknown parentage. Westbrook, ME, before 1869. Medium-large roundish-conic-oblate hard yellow-green cooking and dessert apple with a crowned basin, a bit of faint blush and a dab of russet around the stem. Crisp, juicy, subacid and richly flavored. Will keep until just after New Year’s. Extremely rare. Mentioned in Downing’s classic *Fruits and Fruit Trees of America* but practically no other references exist. On the facade of one of those beautiful old brick Commercial Street buildings in Portland’s Old Port is a huge painted sign, W.L. Blake & Co Mill & Industrial Supplies. If you’ve been to Standard Bakery or Flatbread Company, you’ve seen it. No one seems to know if W.L. had any relation to the apple. We’re currently scouring the area looking for local specimens with the help of fellow fruit explorer David Buchanan and others. If you’d like to help with the search, or if you might have any information leading to the apprehension of said Blake, please contact Fedco, the FBI or the Royal Canadian Mounted Police. Z4-6. **ME Grown**.



106A Blake, $25.00

Calville Blanc d’Hiver Winter. Unknown parentage. France or Germany, 16th century. Also called **White Winter Calville**. Famous as a dessert and cooking apple for over 400 years. Steve Wood of Poverty Lane orchards in Lebanon, NH, called it “the best culinary apple in the world.” Large flattish pale green-yellow fruit with uneven lumpy ribs and a dotted orange-red blush. Creamy-white aromatic fine-grained juicy flesh with a sweet distinctive effervescent flavor. Smooth when baked. Recommended for vinegar, fresh cider and as a sharp (acid) component in fermented cider. Should be stored a month to reach peak flavor. Will keep until midwinter. Very vigorous strongly upright vase-shaped tree with good branch angles. Head the tree if necessary to force it down. Not for coldest areas though certainly hardy to Zone 4. Blooms midseason. Z4-7.

107C Calville Blanc on M111 rootstock, $27.00

What about scab?

Scab is one of New England’s worst apple diseases. But do you need to spray fungicides to combat scab on your apple trees? Not necessarily! We *never* spray for scab. Some varieties are very susceptible to scab but other are not. We prefer the old-time heirlooms and the less common modern sorts. By choosing your varieties with some care, you should do fine and never have to spray for scab. Check our apple descriptions. The worst culprits are all exposed!

Campfield Winter. Vintage American cider apple. Probably a William Campfield introduction, Newark, NJ, before 1800. Also called **Canfield**, **Newark Seedling** and **Sweet Maiden's Blush**. Famous for cider in the 18th century, often mixed with Harrison for the highest quality product. William Coxe described the cider as "strong and highly flavored" in his 1817 treatise on apples. Medium-sized roundish-oblate fruit. Greenish yellow with a dull red stripes and washed and blushed in the sun. White dry firm rich sweet flesh. Elliot's Fruit Book in 1854 call the apple "Valued for stock and cider." Keeps until spring. Named for one of the founding Newark families, variously spelling Campfield, Camfield and Canfield. It may have been William Campfield himself, captain in the NJ militia from 1776-7, who first selected the fruit. Z5-8. **ME Grown**.

108A Campfield, $25.00

Canadian Strawberry Fall. Unknown parentage. Solon, ME. Beautiful superb-tasting dessert apple. Very good early season cider. Perfectly ripe at the end of September in central Maine where, in a good year, you won't find a better apple. In 2002 we put Canadian Strawberry up against Cox's Orange Pippin and Chestnut crab at a Common Ground Fair taste test and it beat both of them. Surprisingly juicy distinctly tart full-flavored medium-to-large round-conic fruit. Rich buttery-yellow skin overspread with a veil of vibrant red-orange. In 1996 the late Roy Slamm convinced me to visit and subsequently propagate nursery stock from the three ancient "Strawberry" trees on his South Solon farm, thus saving the apple from almost certain extinction. Now they are being spread throughout "Fedco land." Medium-sized upright tree bears annually. Fruit does not keep well. Blooms midseason. Not to be confused with Chenango Strawberry. Z4-5. **ME Grown**.

109A Canadian Strawberry, $25.00

Centennial Late Summer. MN 1472 (Dolgo x Wealthy). U Minn, 1957. An unusually high-quality crabapple, about the size and shape of a chicken egg. Outstanding fresh eating. Very highly flavored. Tender crispy juicy slightly spicy tart light orange flesh. Shiny smooth mottled red-pink-orange-yellow skin with a thin purplish blush. Also recommended for jelly and sauce. Ripens in late August, a bit after Trailman. Productive naturally small roundish compact tree. Developed by Arthur Wilcox and Ted Weir of the University of Minnesota's Horticultural Research Station. A University press release on December 26, 1957, announced the release of three new fruit varieties, one of them Centennial, named to honor the hundredth anniversary of Minnesota's admission to the Union as the thirty-second state on May 11, 1858. Scab resistant. Blooms early. Extremely hardy. Z3-5. **ME Grown**.

110A Centennial, $25.00

Chestnut Early Fall. MN 240 (Malinda x open-pollinated) U Minn, 1946. A lot of people love this apple. Small golf-ball-sized fruit with truly excellent fresh-eating qualities. Yellow and bronze-red skin with some russeting. Firm crisp juicy fine-grained very sweet yellowish flesh. The apple version of Sun Gold tomato—fabulous complex flavor in a small package. For a growing number of people in central Maine, late September is Chestnut apple time. Every year we put out a bushel a day at Fedco's booth at the Common Ground Fair and watch them disappear. Neophytes often look at the fruit with disdain. Most however take one bite and their frowns turn to smiles. (For some, despite its crispness and depth of flavor, it is *too* sweet.) Chestnut needs no sugar to make a sweet and subtle sauce. Not a keeper, but can be stored for a month or so. Vigorous, somewhat weeping, medium-sized productive tree. Disease resistant. Also beautiful in bloom, midseason. Z3-5. **ME Grown**.

111A Chestnut, $25.00

Cortland Fall-Winter. (Ben Davis x McIntosh) NY Stn, 1915. A cross between two commercial giants at the time, one (Ben Davis) on the way out and the other (McIntosh **#133**) on the way in. Although never as important as McIntosh, Cortland remains a very popular apple throughout northern New England even in this era of many new introductions. Medium to medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white flesh is very good in salads; fine-grained, crisp, tender, juicy. Produces a surprisingly delightful cider, fresh or fermented, in a mix or even on its own. Vigorous tall upright spreading tree. Annual producer of heavy crops. A recent U. Mass. study showed resistance to apple maggot fly. Bears young; remove fruit for the first year or two to avoid stunting growth. Susceptible to scab. Blooms midseason. Z4-5. **ME Grown**.

112A Cortland, $25.00

Cox's Orange Pippin Fall. Possibly a seedling of Ribston Pippin. Near Slough, Bucks, England, around 1825. Deservedly one of the three or four most famous of all apples. Not only one of the best eating apples ever but also one of the most sought-after varieties in modern apple breeding; parent or grandparent of many other varieties. Revered in the U.K. Medium-sized all-purpose aromatic fruit is red-orange to red with orange russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tender flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH (6.5-7.5+). The oldest Maine Cox's I know is about 40 years old, thriving in Mercer, Zone 4. Scab resistant. Blooms midseason. Z4-6.

113A Cox's Orange Pippin, $25.00

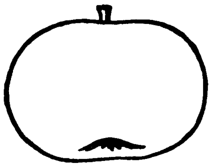
113C Cox's Orange Pippin on M111 rootstock, $27.00

ME Grown = grown in Maine by a member of the Fedco growers coop.

The Functional Orchard

In 2010 we planted a new 200' x 200' (~one acre) orchard of 40 apple trees on our farm. (Our original 100+ trees now range from 10–30 years old.) Our goal is to create a self-sustaining integrated system consisting of fruit trees, small fruits, dynamic accumulators, habitats for pollinators and other beneficials, companion plants, grains, as well as edible and medicinal woody and herbaceous perennials. We plan to show that good food can be grown with no spraying at all—organic or otherwise. Many people don't want to own a sprayer, or simply can't afford one. The model can also be used in conjunction with a spray program.

Form follows function. We call it the "Functional Orchard" for two reasons. Each plant has its own valuable attributes (functions) and all are selected to work together as an operative (functional) whole. This is not the monoculture of the modern orchard. Rather it is a polyculture of useful plants that all work together in an integrated system. We think of it as an orchard version of the "perpetual motion machine." We seek to minimize human intervention and external inputs once the system is set up.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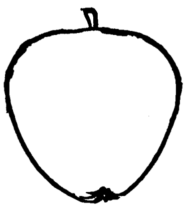
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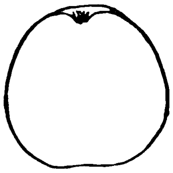
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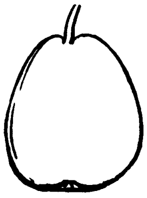
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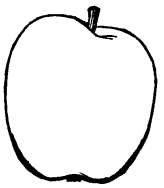
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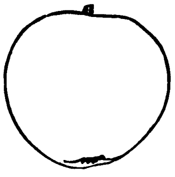
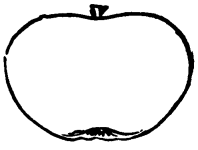

Round-ovate


Oblate-conical

Dabinett Late Fall. Medium bittersweet cider apple. Probably a seedling of Chisel Jersey. Middle Lambrook, Somerset, England. One of the most popular cider varieties in Somerset today and the mainstay of Poverty Lane Cider Orchards in Lebanon, NH. At a MOFGA workshop, Steve Wood of Poverty Lane and Farnum Hill Ciders told us, "If you're going to plant one bittersweet, plant this one." Medium-sized roundish fruit covered with sooty brownish brick-red stripes and blush. Looks rotten even when perfectly firm and ripe. Dense astringent juicy flesh. Sugar content fair and fermentation moderate. High quality well-balanced low-acid cider with a soft-tasting tannin. Pick last week of October, blend with other late varieties. Crops annually. Grower-friendly tree with a spreading drooping habit, may require help in developing a strong central leader. Not pollen compatible with Chisel Jersey. Midseason bloomer. Z4-6. **ME Grown**.

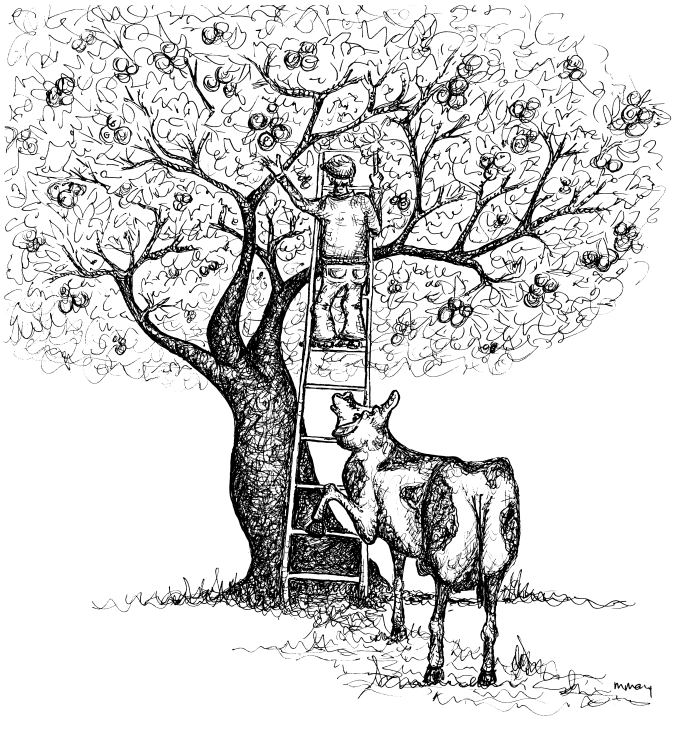
114A Dabinett, $25.00

Duchess of Oldenburg Late Summer. Russia, 17th c. Also called **Duchess**. In 1835 the Massachusetts Horticultural Society imported the first of many apple varieties from Russia. These were Alexander, Tetofsky, Red Astrichan and Duchess of Oldenburg. Duchess was planted extensively wherever growers needed extreme hardiness and is still quite popular in most of northern New England. Aroostook County's favorite apple. Parent of many varieties including Dudley Winter and Canada's famous New Brunswicker (#**134**). Medium-sized round red-striped fruit is irregularly splashed and mottled with crimson. Yellow firm fine-grained crisp tender juicy subacid aromatic flesh. Highly esteemed for all sorts of cooking; Duchess is one of the best pie apples for coldest districts. Makes a pie with a tart flavorful zip and cooks up quickly into thick creamy delicious sauce. Prolific precocious small to medium-sized adaptable tree. Duchess seedlings are used as an extremely hardy rootstock called Borowinka. Scab resistant. Blooms early-midseason. Z3-4. **ME Grown**.

115A Duchess of Oldenburg, $25.00

Enterprise Fall-Winter. Coop 30 [PRI 2693-1=(PRI 1661-2 x PRI 1661-1)] PRI introduction, 1993. From the well-known Purdue-Rutgers-Illinois apple breeding program—one of the most highly recommended new dessert varieties in years. Medium-large roundish red-orange fruit is crisp, firm, juicy with a rich spicy flavor. Stores for 6 months or more. Flavor improves in storage, with best eating about a month into winter. Longtime readers of the Fedco Trees catalog know that I remain a bit of a sceptic when it comes to new varieties. "Show me the beef!" I say. I was reluctant to pay much attention to Enterprise for years, but now have added it to my list of varieties worth planting. Two of my favorite Maine growers, Steve Meyerhans of Fairfield and Joe Vachon of Stetson, are among those who have raved about this fruit. Annual bearing, scab immune, resistant to powdery mildew, cider-apple rust and fireblight. Blooms late-season. Z4-7.

116C Enterprise on M111 rootstock, $27.00



Esopus Spitzenburg Fall-Winter. Unknown parentage. Esopus, NY, 18th c. Herman Melville wrote in his 1853 *Bartleby, the Scrivener*: "Copying law-papers being proverbially a dry, husky sort of business, my two scriveners were fain to moisten their mouths very often with Spitzenburgs, to be had at the numerous stalls nigh the Custom House and Post office." Turkey and Nippers chose well. For over 200 years the apple has been a choice dessert and culinary variety, mentioned in nearly every list of best-flavored varieties. Slightly subacid, crisp and juicy. Medium-large bright-red round to mostly conic fruit, covered with russet dots, not unlike a slightly more conical Starkey. Excellent acid source for sweet or fermented cider. Moderately vigorous tree, with easily trained wide-angle branches. Bears moderate crops. Supposedly susceptible to scab though we don't spray ours and have been happy with the fruit quality. Blooms mid-late season. Z4-7.

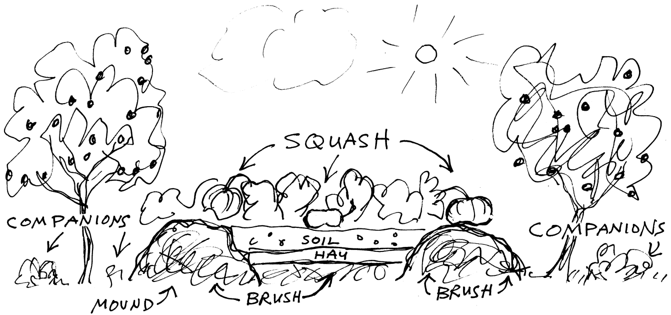
117C Esopus Spitzenburg on M111 rootstock, $27.00

Frostbite Fall-Winter. MN 447. Uncertain parentage. U Minn, 2007. Seed planted at the University of Minnesota before 1936, but unnamed until 2008. This massively flavored dessert apple—not for the faint of heart—provides a whole new level of culinary experience. Likely the most distinctive and unusual apple I've ever tried. Described as tasting like molasses or even sugar cane. The fall dessert apple that we most look forward to on our farm. We love it! The roundish fruit is medium-sized and entirely covered with dark bluish-purple stripes. The aromatic crisp crystalline flesh is an apricot-orange color with occasional red staining, and so juicy it'll run down your hand. Bears fruit nearly every year. Not recommended for warmer districts: one Indiana grower calls it "Frost Bitten." Blooms early midseason. Z4-6. **ME Grown**.

118B Frostbite on Bud 118 rootstock, $27.00

Golden Russet Winter. Uncertain origin. Thought to be from England, New York or New England. The champagne of cider apples, ripening late in fall, when the root cellar has finally cooled off and the best sweet cider is ready to be made: sweet, balanced, thick and smooth. Also recommended as a sharp component for fermented cider. Excellent eating; keeps all winter and well into spring. Round medium-sized hard fruit; uniform in size and shape, softens as winter progresses but maintains its superior sweet flavor. Solid deep yellow *golden* russeted skin! Medium to large vigorous diverging upcurving tree with silvery-green leaves on long willowy branches. Scab resistant. Blooms early to midseason. Z4-6. Both are **ME Grown**.

119A Golden Russet, $25.00
119B Golden Russet on Bud 118 rootstock, $27.00



TWO HUGEL MOUNDS WITH GARDEN INBETWEEN

Hugelkultur update 2012

We have employed our own version of *Hügelkultur* in our new orchard. We bury forest debris (roots, branches, old logs etc.) in berms winding alongside the fruit trees, creating extended raised-bed terraces and water dams. By burying the brush, we can keep all the mineral and biomass in the orchard. Nothing is removed or bull-dozed away. We also fertilize and—literally—build up the soil to feed future plant roots while avoiding the use of another gas hog, the chipper.

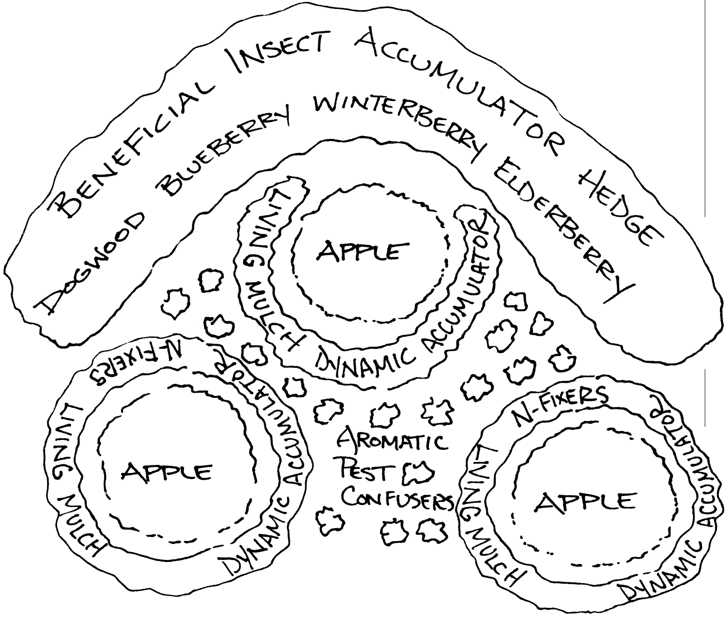
We built two parallel hugel mounds in 2011. The mounds are 160' long, 4' high and about 12' wide. They are set 12' apart. In the spring of 2012 we filled the "trough" between the 2 piles with more brush. We covered that brush with hay, followed by about 6" of soil collected from the surrounding area. We then created 40 hills in this new "alley crop" garden, filled them with rotted manure and compost and planted squash. This 160' x 12' space will help feed us while simultaneously helping to break down and compost the woody material below. Meanwhile, the tree roots will grow into the mounds, and we will continue to plant more orchard companions between and around the trees. It's exciting to watch the system begin to take shape. It's an experiment!

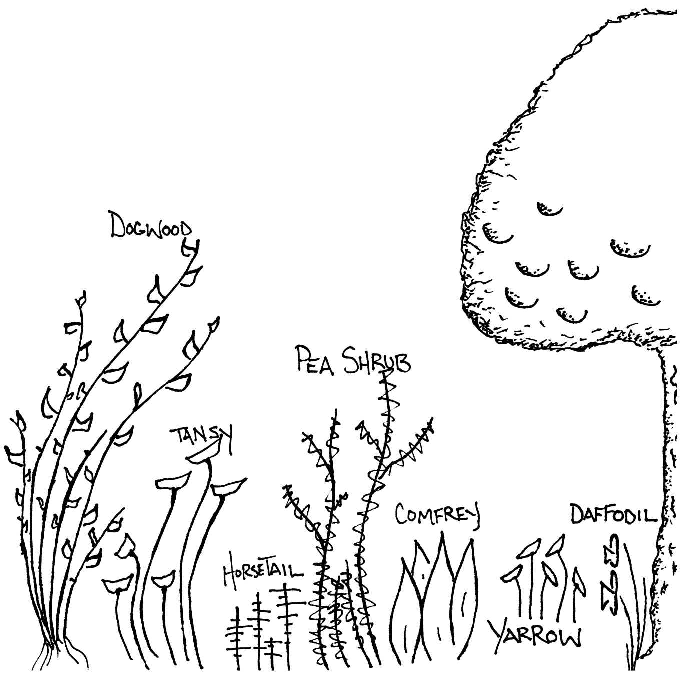
10 Companion Plants for the Orchard

Companion plants encourage natural processes that benefit overall health and vitality of fruit trees. This means less work lugging around sprayers, buying fertilizer, spreading compost and worrying about pollination. These plants help us do the work and they do it well. (For more tips on attracting pollinators, see page 20.)

Here are 5 important roles companion plants can play in the orchard:
Living Mulches produce large quantities of organic matter that can be cut back to decompose around tree bases, enriching the soil.
Dynamic Accumulators have long taproots that bring up minerals from deep subsoil. Cut foliage throughout the season to break down around trees, creating dark nutrient-dense soil.
Nitrogen-Fixers transform nitrogen from the air to the soil where it can be absorbed by tree roots.
Beneficial Insect Accumulators contain nectar sought by predatory insects (aka beneficial insects, including braconid wasps, syrphid flies, and lacewings) that feed on fruit-tree pests. BIAs also attract orchard pollinators.
Pest Confusers have bitter aromas that deter and confuse insect pests from eating fruit.

A few considerations when planting in your orchard:
Once established, companion plants do not require a lot of care; they will do fine on their own.
Planting companions in groups, masses or hedges is often more effective than planting individuals. Think nature!
Plant woody shrubs and beneficial insect accumulators along orchard borders where they can flower and thrive undisturbed out of the way of the mower. Others such as Living Mulches, Dynamic Accumulators and herbaceous Nitrogen Fixers can be placed closer to the trees. Cut them and let the foliage decompose to nourish feeder roots.





Here are our top 10 companions. Don't limit yourself—there are many more! See the plant chart on pages 50–51 for other suggestions. Where noted, these are available from Fedco Trees (FT), Fedco Seeds (FS) or Fedco Bulbs (FB). Those not offered by Fedco can be found elsewhere, often by the side of the road or in your own backyard.

1. Comfrey *Symphytum officinale* Dynamic Accumulator rich in nitrogen, potassium and calcium when cut to the ground for mulch; makes a mineral-rich foliar spray. Predatory pest habitat. Nearly impossible to eradicate: plant it where you want it forever, 4–15' from tree trunks. (FT)
2. Daffodils *Narcissus* spp. Deter mice and voles from girdling tree trunks. Plant in a tight circle (bulb to bulb) about 12" from tree trunks. (FB)
3. Dogwoods *Cornus* spp. Beneficial Accumulator increases braconid wasp populations to parasitize numerous pests such as apple maggot flies, moths and caterpillars. (FT)
4. Horsetail *Equisetum arvense* Dynamic Accumulator extremely rich in silica. The cream of the crop when it comes to making tea for foliar spray. Promotes strong and healthy cell growth in fruit, considered anti-fungal. Don't let it get too close to the garden or you'll never get it out. Often found in the wild.
5. Hyssop *Hyssopus officinalis* Pest Confuser with bitter aroma, long used as a companion plant in gardens and orchards. (FT)
6. Chives *Allium schoenoprasum* Help prevent scab. Make into tea and use as a foliar spray. Groundcover and aromatic Pest Confuser. (FS)
7. Siberian Peashrub *Caragana arborescens* Nitrogen-fixing woody shrub can be planted alone or as a border. Prune it back to the base and use for mulch. (FT)
8. Sweet Cicely *Myrrhis odorata* Beneficial Accumulator provides nectar for adult syrphid flies whose larvae eat huge quantities of aphids. Predatory pest habitat. Will thrive in the shade of mature trees. Start from seed, available in the trade.
9. Tansy *Tanacetum vulgare* Pest Confuser with strong aroma of camphor, deters codling moth and borers. *Toxic if eaten*. Often found in the wild.
10. Yarrow *Achillea millefolium* Living Mulch rich in copper, nitrogen and phosphorus. Also very beneficial for adding minerals to the compost pile. (FS, FT)

Not Far from the Tree: A Brief History of the Apples and the Orchards of Palermo, Maine, 1804-2004 by John Bunker, 200 pages, 8½ x 11, softcover. John reveals how he came to know so much about apples—he spent years talking to his neighbors in Palermo listening to their stories and walking their fields and orchards learning the varieties, how they came to be planted there and why. A wonderful lesson in Maine history as told by apples. His engaging narrative and entertaining and informative drawings take us into the rich diverse past of a seemingly unremarkable town. A history of agriculture told in the apple trees. Many long abandoned and all but forgotten, some nursed back to health, and some finding new life as scionwood that begets generations of apple trees from Fedco. John is a colleague and a friend and I confess that I am not a disinterested reviewer. I even have a tiny part in his story—I taught him how to make an apple pie. John's love of apples and affection for his neighbors and town speak clearly through each page. Copiously illustrated in John's unmistakable style.

–David Shipman

We will donate $5 from the sale of each book to the Palermo Historical Society. Also available year-round from Organic Growers Supply.

7509 Not Far from the Tree, $22.00

GoldRush Winter. Coop 38 {PRI 2750-6 [Coop 17 (PRI 1689-100) x Golden Delicious]} PRI Coop, 1994. The first of the new disease-resistant varieties have superior storage qualities. Not only that, but it's probably *the* best-tasting apple to come out of the PRI program. Love those Golden Delicious qualities! Medium to large round-conic fruit has uniform deep greenish-yellow opaque chewy skin that turns golden in storage. Creamy white green-flecked flesh is hard, very crisp, juicy and tart. A solid apple with excellent flavor. Serve them for dessert in February and March and no one will be disappointed. Ripens very late in fall, but will usually do so successfully in central Maine. Keeps until early May in the root cellar. Very precocious. Highly resistant to scab and powdery mildew. Moderate fireblight resistance. Moderately vigorous tree with a strong central leader. Blooms mid to late season. Z4-9. **ME Grown**.

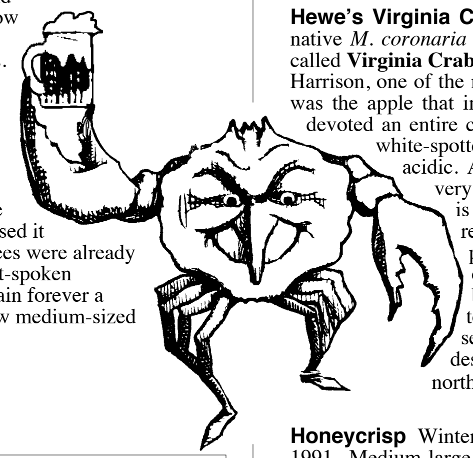
120A GoldRush, $25.00

Gravenstein Late Summer. Thought to be of 17th-century Italian or German origin. Brought to the U.S. in the early 19th century. By 1880 it was the most popular summer apple in Maine. Probably *the* most famous of all summer apples and usually considered the best of all pie apples. Still commonly grown in Nova Scotia, northern California, Oregon and Washington. Tender crisp aromatic richly flavored juicy firm tart flesh. Outstanding eating and cooking. Rated "very good to best" by Beach in *Apples of New York*. Fruit is medium to large, irregularly round, asymetrical, usually ribbed. Thin tender skin, striped with yellow, red and orange. Large vigorous productive tree with a nearly perfect wide-angle branching habit that requires practically no training. Ripens over several weeks. Too tender for colder areas of New England. Blooms early. Triploid: not suitable for pollinating other varieties. Z4-7.

121C Gravenstein on M111 rootstock, $27.00

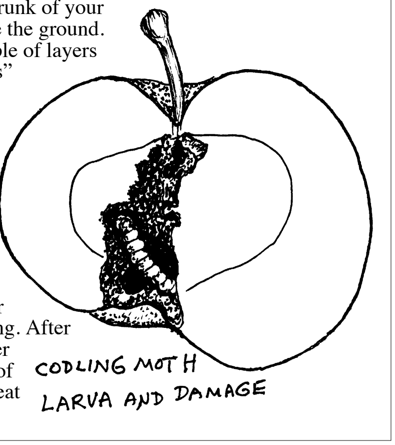
Gray Pearmain Late Fall. Probably Skowhegan, ME, before 1880. Absolutely delicious dessert apple with a distinct pear flavor and firm white juicy mildly tart flesh. Medium-sized obscurely ribbed and muffin-shaped fruit has a soft opaque greenish-yellow skin with a rosy pink blush, a russet veil, and a greyish bloom. Pick them late—even after the Spies. Eat them in the fall, winter or spring. Produces excellent juice. Keeps extremely well. The most unusual variety Steve and Marilyn Meyerhans grow at The Apple Farm in Fairfield, ME. Mentioned as being grown by CA Marston of Skowhegan, just a few miles from The Apple Farm, in the 1885 *Maine Agricultural Yearbook*. There were five or six of the trees in the orchard when Steve and Marilyn purchased it over 30 years ago from Royal Wentworth. Those trees were already old. Unfortunately they never thought to ask the soft-spoken Wentworth about the apple. Its true origin may remain forever a mystery. Annually bearing manageable easy-to-grow medium-sized spreading tree. Blooms midseason. Z4-6. **ME Grown**.

122A Gray Pearmain, $25.00

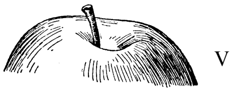


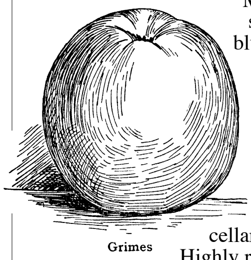
Codling Moth Trap

One of the worst apple pests in much of the country is codling moth. Here's a method for reducing your population. Cut a 4–8" wide strip of corrugated cardboard. Wrap it around the trunk of your apple tree three feet or so above the ground. The cardboard should be a couple of layers thick with the corrugated "tubes" placed vertically. Fasten with string or tape. Remove and check regularly (every two weeks or so) for moth pupae under or in the cardboard. Squish them or burn the cardboard. Then replace or put up a new piece. Set up the cardboard traps at bloom time and leave them up all summer and into fall, or check with your local extension service for timing. After discovering earwigs living under the cardboard sleeves on some of our trees, we read that earwigs eat the codling moth larvae.



CODLING MOTH
LARVA AND DAMAGE





Grimes

Grimes Golden Fall. Unknown parentage. West Virginia, c. 1804. All-around excellent variety grown in old Maine orchards for over 100 years. Medium-sized roundish fruit with opaque yellow skin, scattered with grey russet dots and an occasional faint blush. Thought to be a parent of Golden Delicious. Tart citrusy crisp dense firm fruit is excellent for dessert and cooking: wonderful spicy fresh eating and wonderful applesauce. Makes a thick sweet cider and a good single-variety hard cider: light and fruity. Tends to begin dropping fruits before you can pick them, but fret not; they're ready to eat. Just collect them off the ground as they fall and use them up. Then pick the rest off the tree and store in the root cellar until spring. Productive, annual bearing, precocious. Highly recommended. Z4-6.

123B Grimes Golden on Bud 118 rootstock, $27.00
123D Grimes Golden on Bud 9 rootstock, $27.00

Harrison Mid-Late Fall. Vintage cider apple. Unknown parentage. South Orange, Essex County, New Jersey, as early as 1712. Originally called **Osborne**, then **Long Stem**. Other names include **Newark**, **Orange Cider** and **Harrison's Newark**. One of the most renowned American cider apples. Dates from the first great period of domestic cider making. (We're hoping this will become the second.) In the nineteenth century, Harrison cider was considered to be better than champagne. Medium-small somewhat oval yellow-skinned fruit with many small black dots and a very long stem. Rich firm dry yellow flesh. According to Coxe in 1817, it makes a "high coloured, rich, and sweet cider of great strength, commanding a high price in New-York, frequently ten dollars and upwards per barrell." Vigorous productive tree. A bit of a Harrison revival is underway in several locations on the East Coast. In our trial here in central Maine. Its hardiness is as yet untested. Probably Z5-8. **ME Grown**.

125A Harrison, $25.00

Hewe's Virginia Crab Fall. Uncertain origin, possibly a seedling of the native *M. coronaria* var. *angustifolia*. Probably Virginia about 1700. Also called **Virginia Crab**, **Hewe's Crab**, **Hugh's Crab** and **Hughes Crab**. Like Harrison, one of the most prized of all American cider apples. So important was the apple that in his *A View of the Cultivation of Fruit Trees*, Coxe devoted an entire chapter to making cider with Hewe's. The red-skinned white-spotted fruit is small, round, juicy, tough, astringent and acidic. According to AJ Downing in 1848, Hewe's "makes a very high flavoured high dry cider, which, by connoisseurs, is thought unsurpassed in flavour by any other." Coxe recommends making single-variety cider from the first pressing, then adding the once-pressed pomace to other cider apples and pressing it again for a second blended batch. Be aware that the apples are small. If you intend to produce single-variety cider, you may want to grow several trees! Very productive small tree. Quite hardy despite its name. Long ago used as a rootstock even as far north as Maine. Long midseason bloomer. Z4-8. **ME Grown**.

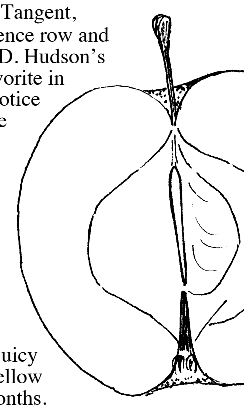
126A Hewe's Virginia Crab, $25.00

Honeycrisp Winter. MN 1711 (Keepsake x open-pollinated) U Minn, 1991. Medium-large fruit, described as "explosively crisp," mottled and striped red over yellow. Cream-colored flesh is sweet and juicy with hard snapping-crisp texture. Mild aroma and subacid flavor are top quality in September and improve steadily in storage. Unusual because it ripens in early fall yet keeps up to seven months in the root cellar. This year our fruit was almost as crisp in June as it was in the previous October. First of the many excellent University of Minnesota introductions to receive large-scale commercial attention, now has a huge following. Has become our best-selling apple. Probably best planted north of Massachusetts; has not performed as well in warmer districts. Tends towards annual bearing. Relatively small low-vigor upright spreading tree. Above-average scab resistance. Blooms mid-late season. Z3-4.

127A Honeycrisp, $25.00
127C Honeycrisp on M111 rootstock, $27.00

Orchard Ladders

Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement.
Contact the manufacturer:
Peter Baldwin
207-722-3654
baldwin@acadia.net



Hudson's Golden Gem Fall. Tangent, Oregon, 1931. Discovered in a fence row and introduced soon afterward by A.D. Hudson's Wholesale Nurseries. A local favorite in Oregon, more recently gaining notice practically everywhere apples are grown. Popularized in Maine through the efforts of Mark Fulford. Thanks, Mark! Magnificent medium-to-large distinctly conical russeted long-stemmed fruit. Skin a soft yellow-tan, overlaid with a fine weave of light and dark browns—even black—like an ancient canvas canoe with its intricately cracked paint. Sweet juicy crisp smooth firm-but-melting yellow pear-like flesh. Stores several months. Naturally small but vigorous productive annually bearing scab-resistant tree. Also resistant to powdery mildew and fireblight. This is a truly fine dessert fruit of unique appearance and exceptional flavor. Blooms mid-late. Z4-9.

128C Hudson's Golden Gem on M111 rootstock, $27.00

King of Tompkins County Fall. Unknown parentage, Washington, NJ, before 1800. Also called **King**, or **Tompkins King**. We recommend KTC for sweet eating right off the tree in October and large juicy fruit to fill the sauce pot or the home cider press. Even the experts and apple snobs never pass up King in October. They're very good. Round-to-oblate blocky lumpy fruit, almost entirely overlaid with dark orange-red stripes and blush. Crisp yellow flesh, tender, coarse with good to excellent balanced flavor. Annually bears a medium to heavy crop. Keeps until January. I'm convinced that one of the reasons they named it King is for its incredible vigor and productivity. The young grafted trees outgrow all others. When I topworked a wild tree at our place a few ago, it grew 4 feet the first year! Gained recognition in New York's Tompkins County and later spread all over the Northeast becoming extremely popular as a home and commercial variety in the 19th century. Old trees still found here and there in Maine. Blooms midseason. Z4-7. **ME Grown**.

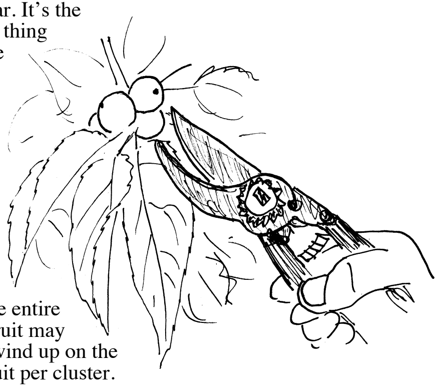
129A King of Tompkins County, $25.00

Kingston Black Fall. Bittersharp cider apple. Unknown parentage. Somerset, England, early 19th c. High in tannin and acidity. Produces full-bodied vintage cider with a nice blend of acid, tannins and sugar. One of the few varieties which makes a high-quality *single variety* hard cider, also good in a blend. We've become fans of Farnum Hill's tasty Kingston Black varietal. Medium-sized conical beautiful rich red fruit, mottled with red russet and deeper shades of maroon (but not black!). Fairly decent fresh eating. The tree is a reliable bearer, but is gangly and needs careful pruning. Blooms midseason. Z4-6. **ME Grown**.

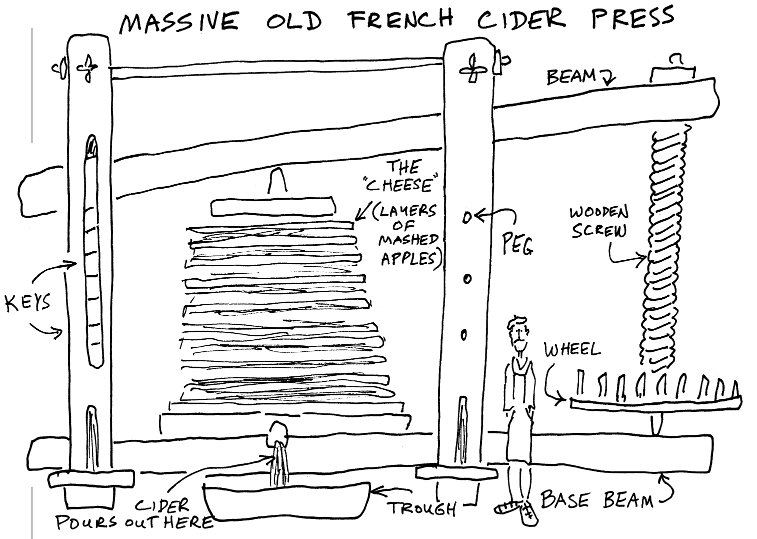
130A Kingston Black, $25.00

ME Grown = grown in Maine by a member of the Fedco growers coop.

Thinning Apples



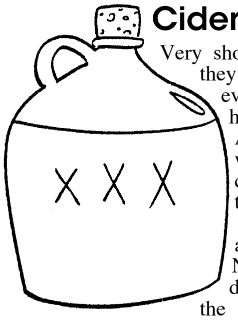
Thin your apple crop every year before July 4. Thinning reduces disease and pest pressure, increases fruit size, and encourages fruit bud formation for next year. It's the single most important thing you can do to promote annual fruiting. Commercial growers use sprays to force their trees to self-thin (abort). You can do it by hand. Snip off small apples with clippers or "pop" them off with your fingers. Leave the stem connected to the tree. If you pull off the entire stem, the remaining fruit may weaken, detach, and wind up on the ground. Leave 1–2 fruit per cluster. Space clusters about 3–4" apart.


MASSIVE OLD FRENCH CIDER PRESS
BEAM
THE "CHEESE" (LAYERS OF MASHED APPLES)
WOODEN SCREW
PEG
KEYS
WHEEL
CIDER POURS OUT HERE
TROUGH
BASE BEAM

Hard-Cider Apple Collection A package of 7 trees to begin your cider orchard. Our choice of 2–4 sharps or bittersharps and 3–5 bittersweets for each collection. The individually labeled trees will include at least 6 different varieties, perhaps including some not listed here. (3-6' trees) **ME Grown**.

158A Hard-Cider Apple Collection, bundle of 7 for $150.00

Cider Apples

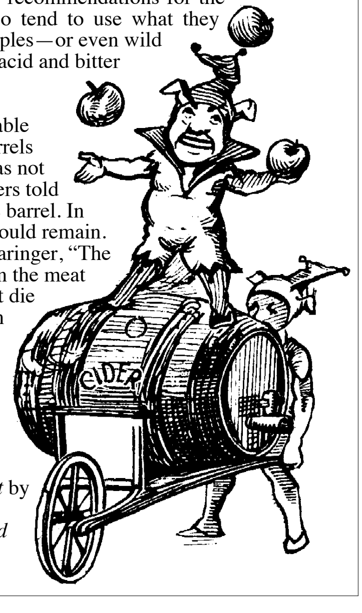


Very shortly after Europeans arrived in New England they planted apple trees. Soon orchards were everywhere and so were cider presses. Every town had at least one and often several. Cider became America's drink. Those days came and then went. Until now. Cider is making a huge comeback. Despite government efforts to destroy the cider industry, cider is having a renaissance.

Each year we offer an assortment of European and American cider varieties. Many of these are NOT for fresh eating. Please note the descriptions for details. They do however possess the qualities that make them very desirable for fermented cider production, and hard or fermented cider is what we mean by 'cider.'

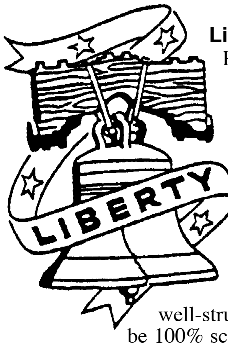
Experts classify the cider varieties into four categories: **sharp** (low in tannins, high in acid), **sweet** (little or no tannin, low acid), **bittersharp** (high in tannins and high acid) and **bittersweet** (high tannins and sugar, low acid, astringent, said to make the highest quality cider). **Tannin** denotes naturally occurring compounds whose bitter astringency gives rounded full flavor, body, and golden color. **Vintage** refers to varieties that possess the perfect qualities for cider.

Bittersweets don't contain enough acid to make quality single-variety ciders. Cider needs sharp apples to provide some acid. Bittersweets do add depth and body. Up to 40% of a batch of juice can be bittersweets. Cidermakers blend the bittersweets with bittersharps or high-acid (sharp) dessert apples. See the chart on page 9 for recommendations for the best cider apples. Cidermakers also tend to use what they have at hand: many other dessert apples—or even wild seedling fruit—may have plenty of acid and bitter astringency to use in blends.



"A rat in every vat" refers to the inadvertent but not entirely undesirable additional protein found in cider barrels generations ago (when the world was not so antiseptic). Here in town old timers told me of hanging a piece of beef in the barrel. In spring, only the supporting string would remain. According to cidermaker Cassie Tharinger, "The vitamin B complexes and proteins in the meat fed the yeast and made sure it didn't die out, especially over the winter down in the cool cellar. Cidermakers still add yeast nutrient to the juice to help the yeast stay active and well-fed as it ferments the sugars, they've just moved on to more refined forms of vitamin nutrition!"

We recommend two books on cidermaking: *Cider Hard and Sweet* by Ben Watson and *Cider: Making, Using and Enjoying Sweet and Hard Cider* by Annie Proulx and Lew Nichols.



Liberty Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Coop complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)]. NY Stn, 1978. Often cited as the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. Handsome medium-sized round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe. Excellent cooking and sweet cider too. Recommended for single-variety sweet cider. Keeps till late fall. Begins fruit production at an early age, bearing consistent heavy annual crops. Naturally well-structured sturdy tree is easy to care for. Considered to be 100% scab-immune, though not resistant to insects or other lesser apple diseases. Allowing Liberty to crop too heavily at a young age can stunt final tree size and reduce productivity. Even with mature trees, thinning fruit clusters is important to maintain fruit size. Blooms early to midseason. Z4-6.

131A Liberty, $25.00
131B Liberty on Bud 118 rootstock, $27.00
131D Liberty on Bud 9 rootstock, $27.00

Mantet Summer. Tetofsky x open-pollinated. Morden Stn, Manitoba, 1929. Sometimes said to be a McIntosh and Tetovsky cross. Very high quality extremely hardy late-summer variety for dessert and cooking. Late August in central Maine. Fine-grained juicy tender aromatic creamy white flesh has very good flavor. Medium-large roundish-truncated ribbed slightly lumpy fruit. Amber skin is washed with dark red streaks and blotches. Grower Don Johnson wrote to me, "First, it has a wonderful bloom. Some people plant flowering crabs just for the bloom. I think Mantet is equal to any of them. Of the 100 apples that I have I can't think of any that are as nice. Second, it is an annual heavy bearer. And for an early bearer…it keeps well, much better than Lodi or Yellow Transparent. Fourth, it has a most pleasing apple flavor…After they taste it they all want to grow it." Upright hardy fast-growing productive tree. Blooms early season. Z3-5. **ME Grown**.

132A Mantet, $25.00

McIntosh Fall. Thought to be a seedling of Fameuse or perhaps St. Lawrence x Alexander. Dundela, Ontario, 1811. First discovered by John McIntosh on his farm near the St. Lawrence River. Originally called Granny's Apple, then McIntosh Red, sometimes Gem, and finally McIntosh. Certainly the most important apple in the Northeast. Although not planted in many other locations, it grows to perfection in our cool climate. There are many strains of McIntosh, some striped, some blushed, some solid red. Recent strains have been selected for traits other than flavor, and the variety has gotten a bad reputation. This strain has green ground color overlaid with red stripes and blush. It was planted in 1906 in Mercer, ME. Of all the strains we have sampled, this one has the best "Mac" taste. This is a delicious aromatic apple. Annual cropper. Large beautifully rounded spreading strong easily managed tree. Very susceptible to scab but has shown resistance to apple maggot fly. Does not keep well in home storage. Blooms midseason. Z4-5. **ME Grown**.

133A McIntosh, $25.00

For the ultimate cider experience join us at the 18th annual Cider Days festival in Franklin County, MA, on November 3-4, 2012. An old-fashioned weekend of workshops, panels, orchard tours, tastings, dinners and everything cider. If you are into apples and cider, it is just the thing for you. Join Fedco's John Bunker and cider enthusiasts and celebrities from all over the U.S. and Canada for an educational—and very fun—weekend.

New Brunswicker Late Summer-Fall. Possibly a Duchess or Alexander seedling. FP Sharp introduction, Woodstock Nurseries, Upper Woodstock, New Brunswick, about 1855. Also called **New Brunswick** and **New Brunswick Duchess**. All-purpose variety, similar to Duchess but ripening slightly later. Fruit is roundish, light yellow, attractively shaded, penciled and striped with red. Crisp, tart and slightly astringent flesh. If you like Duchess and you like to cook and you live in a cold spot, you should want this apple. The most famous introduction by one of the greatest plant breeders and nurserymen of the nineteenth century, New Brunswick's "Father of Fruit Culture" Francis Peabody Sharp (1823-1903). He trialed hundreds of tree-fruit varieties and grew hundreds of thousands of trees, selling them in both the U.S. and Canada back when everyone traveled freely across the border. At one time nearly every farm in New Brunswick had a New Brunswicker tree. Northern Maine owes its orchard heritage almost entirely to Sharp. Recommended for the coldest districts. Z3-5. **ME Grown**.

134A New Brunswicker, $25.00

Northern Spy Winter. Chance seedling. East Bloomfield, NY, about 1800. One of the most famous of all heirloom apples. Very large delectable all-purpose pink fruit has yellow background covered all over with pink and light red stripes. Very juicy and tender. Even when the soft skin bruises, the fruit keeps extremely well. Cooks up quickly into a loose mild sauce. No need to remove the skins. Its reputation as a pie apple is more than well deserved: makes a very good single-variety pie! Its one drawback is being slow to come into bearing, although for us it's been worth the wait. Medium-to-large moderately vigorous long-lived tree. Prefers fertile well-drained soil. Good scab resistance. Leafs out late and blooms late season. Z4-6. Both are **ME Grown**.

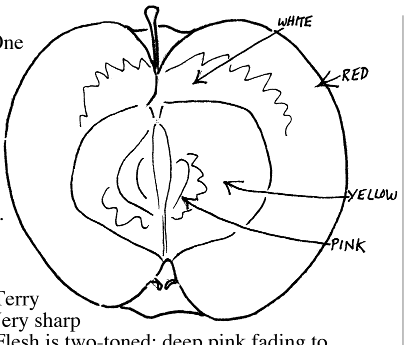
135A Northern Spy, $25.00
135B Northern Spy on Bud 118 rootstock, $27.00

Pound Sweet Fall. Unknown parentage. Manchester, CT, about 1834. Also called **Pound Sweeting**. Famous cooking apple once widely planted on Maine farms and still found here and there. I know of several old trees within a couple miles of our farm. Often claimed to be the best fall variety for baking, for applesauce and even for stewing with quince. The sauce needs no sugar and gets sweeter as it cooks. Firm coarse flesh tinged with yellow. Sweet unusual flavor, called "peculiar" by Beach in *The Apples of New York*. Not a pie apple in our experience and a bit strange fresh eating. Will keep for a few weeks after picking. Large hardy long-lived open-spreading tree. Often considered in Connecticut and New York (but not in Maine!) to be a synonym of Pumpkin Sweet. Blooms midseason. Z4-6. **ME Grown**.

136B Pound Sweet on Bud 118 rootstock, $27.00

Priscilla Fall-Winter. Coop 4 [PRI 1659-1=(Starking Delicious x PRI 610-2)] PRI Co-op, 1972. (PRI 610-2 is a complex cross including Rome, *M. floribunda* 821, Golden Delicious and McIntosh.) Dark red conical scab-immune fruit with a very good crisp sweet flavor. The second variety released in the PRI disease-resistance breeding program and still one of their best. Rarely found in catalogs anymore, perhaps because the patent ran out. This is as close as you'll get to the dreaded Red Delicious in a Fedco catalog. But no apologies, it's a very good dessert apple. I prefer it to Liberty. "Undoubtedly" named in honor of America's most famous Priscilla: Priscilla Mullins, the young Pilgrim woman who famously declared to John Alden so very long ago, "Why don't you speak for yourself, John." Very productive, you will likely need to thin your crop to boost the fruit size. Resembles Empire but without the scab susceptibility. Also resistant to sooty blotch. Will keep into midwinter. Blooms midseason. Z4-7. **ME Grown**.

137A Priscilla, $25.00



Redfield Fall. Wolf River x Niedzwetzkyana. NY Stn, 1938. One of the best and largest of the red-fleshed apples. Although usually considered way too tart for eating out of hand, the medium-large fruit with opaque solid rusty-red skin is absolutely great in pies. It makes wonderful jelly and turns sauce and cider red. Gained fame in the hard-cider world thanks to the wonderful single-variety Redfield cider and Redfield blends made by the late Terry Maloney of West County Cider. Very sharp and bitter in cider-makers' lingo. Flesh is two-toned: deep pink fading to white around the core. The flowers are also two-toned, deep pink, tipped with small white lightening bolts. And the bronze-red foliage adds further interest all season. Sometimes listed as a crabapple but don't be fooled: the apples are the size of a Mac. One of the very first to bloom each year. Z3-6. **ME Grown**.

138A Redfield, $25.00

Reine de Pomme Fall. Strong bittersweet cider apple. Possibly Normandy, France, before 1920. One of the late Terry Maloney's favorites. After hearing about the apple a few years ago from cidermaker Cassie Tharinger, I wrote to Terry requesting grafting wood. He generously provided us with wood and wrote to me, "I think the Reine de Pomme has the most powerful and unique taste in a cider of any of the apples we grow. It's a true spitter though. It does okay around here, with a tendency towards biennial bearing (although a neighbor planted some for us and seems to have a steady crop) and an upward growth habit." The Maloney West County Cider website says, "As a cider it has a deep, dark-fruit, honeyed taste. We blended it with our Dabinett to round out the tannins, and Redfield to add bright fruit and to balance the bitter-sweets. Though blended, Reine de Pomme leads the taste, and the Dabinett and Redfield fall in nicely as supports. It is the fullest-bodied cider we have made. Alcohol 5.7%." On trial here now in central Maine. Z4-7. **ME Grown**.

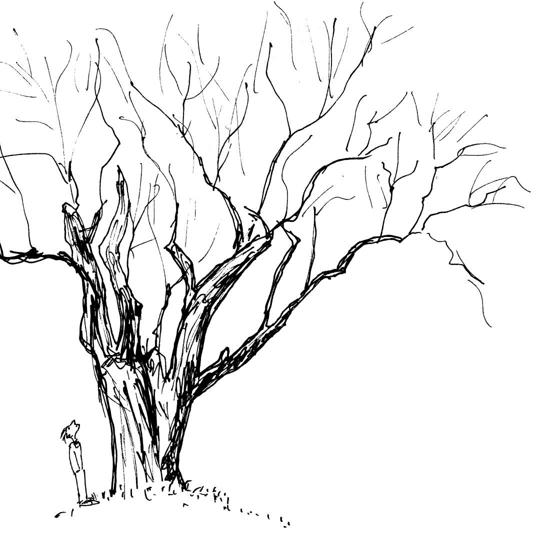
139A Reine de Pomme, $25.00

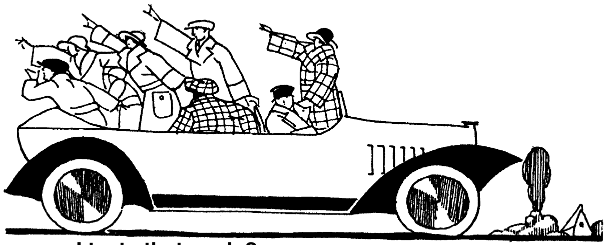
Roxbury Russet Winter. Roxbury, MA, early 1600s. One of the best late-winter dessert apples: rich, spicy and juicy. The aromatic juice is highly recommended for both single-variety cider and blends, fresh or fermented. Hard medium-large oblate-conic-angular green fruit mostly covered with greenish to yellowish-brown russet. Not uniform in size, shape or color. Keeps until late spring. Medium-to-large vigorous spreading tree. Probably the first named American apple variety. Together with (#**104**) Baldwin and Rhode Island Greening, one of the big three commercial apples in New England for much of the 19th century. We're on a mission to re-establish trees in the Roxbury area. If you know of anyone there who'd like to help, please be in touch. We hope to see them all over the city one day. Scab resistant. Z4-6. **ME Grown**.

140A Roxbury Russet, $25.00

Sand Hill Fall. Unknown parentage. Probably originated on Sand Hill, Somerville, Lincoln County, ME, before 1850. Round solid-yellow-green all-purpose fruit tastes very good. In the endless quest for ancient apple trees, the "Sand Hill" tree has been a major discovery. The massive open-vase-shaped tree with its five huge spreading limbs is one of the best things about Sand Hill Farm. (Their strawberries are pretty good too!) A stately presence on the edge of one of Shaun Keenan and Benji Knisley's strawberry fields. Likely one of the oldest trees in the midcoast area. Long lived! Z4-7. **ME Grown**.

141A Sand Hill, $25.00





Where can I taste that apple?

While we pride ourselves with our variety descriptions, there's nothing like the real thing. No words can compare to the taste. Frequently I'm asked, "Where can I taste a ….?" Here are a few suggestions.

The best place to taste apples in Maine is the **Great Maine Apple Day**, Sunday, October 21, 2012, at MOFGA in Unity.

Maine:

Visit the orchards near you. Call the Maine Dept of Ag at (207) 287-3491 or visit them online at getrealmaine.com for a complete list of the orchards in Maine. Many have unusual varieties. Even one or two rare finds can be worth the trip. Below are a few orchards with wonderful collections. I'm sure there are others. Don't be frustrated if you call and reach no one. Just go. By September most of them are open 6 or 7 days a week.

- Ricker Hill Orchards, Turner, Androscoggin County (207) 225-5552, www.rickerhill.com. Organic apples and more, mostly modern varieties.
- Sweetser's Apple Barrel and Orchards, Cumberland Center, Cumberland County (207) 829-3074, www.maineapple.com. A great collection of 39 old and new varieties. Their pride and joy is an ancient Rolfe tree. Don't miss it.
- Bailey's Orchard, Whitefield, Lincoln County (207) 549-7680. One of the largest collections of old varieties in the state. Pears, plums and crabapples, too.
- Lakeside Orchards, Manchester, Kennebec County (207) 622-2479, www.lakesideorchards.com. Organic apples and a good collection of mostly new varieties.
- Maine-ly Apples, Dixmont, Penobscot County (207) 234-2043, www.mainelyapples.com. A growing collection of old and new varieties.
- Rollins Orchard, Garland, Penobscot County (207) 924-3504. A very good collection of over 20 unusual old varieties. Plums and pears, too.
- Sandy River Orchard, Mercer, Somerset County (207) 587-2563, sandyriverapples.com. Established in 1852 by the Fenton family. A huge collection of over 140 varieties, many old and unusual.
- The Apple Farm, Fairfield, Somerset County (207) 453-7656. A great collection of unusual old and new varieties.
- Cayford Orchards, Skowhegan, Somerset County (207) 474-5200. 57 new and heirloom varieties of tree fruit on a sixth-generation family farm.
- Sewall's Orchard, Lincolnville, Waldo County (207) 763-3956, www.sewallsorchard.com. Organic apples including some of the first disease-resistant releases.
- Dole's Orchard, Limington, York County (207) 793-4409, www.dolesorchard.com. Mix of old and new. They have two un-named varieties crossed by the late Maine plant breeder Russell Bailey. Both are extremely rare, if not unique.

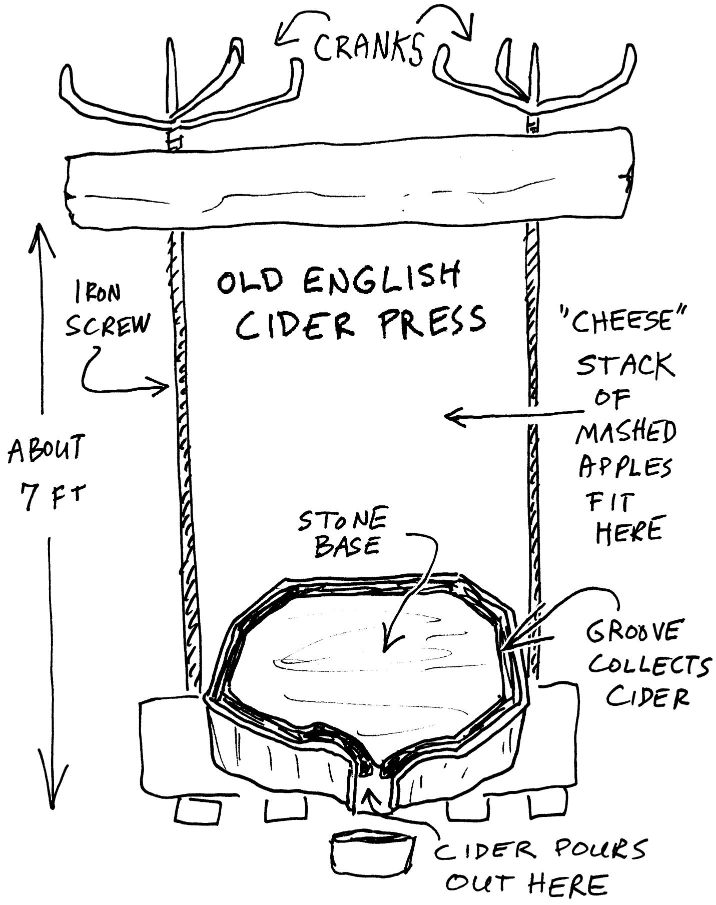
Other New England States:

I know a few orchards with good collections outside of Maine. If you know of any we should list, please let us know. An online search could direct you to an orchard nearby.

- Nashoba Valley Winery, Bolton, MA. (978) 779-5521, www.nashobawinery.com. A very large collection of old and new varieties.
- Tower Hill Botanic Garden, Boylston, MA (508) 869-6111, www.towerhillbg.org. The best collection of historic varieties in New England. At last count 119, all labeled in an arboretum-type setting. A great place to study the fruit. Usually for sale at a special event over Columbus Day weekend. Call ahead.
- Hutchins Farm, Concord, MA (978) 369-2480. Nice collection of old and mostly newer varieties.
- Old Sturbridge Village, Sturbridge, MA (508) 347-3362, www.osv.org. Apple days: September 29–30, 2012.
- Gould Hill Orchard, Contoocook, NH (603) 746-3811, gouldhill.com. Large collection of new and old varieties.
- Poverty Lane Orchards, Lebanon, NH (603) 448-1511, www.povertylaneorchards.com. Likely the best collection of unusual dessert apples in New England. One of the largest collection of cider apples in the U.S. They have most of the cider varieties we sell.
- Alyson's Orchard, Walpole, NH (603) 756-9090, alysonsorchard.com. Large collection of new and old varieties.

St. Edmunds Russet Early Fall. First discovered in the orchard of a Richard Harvey, Bury St. Edmunds, England, about 1870. Received a first-class certificate from the Royal Horticultural Society, October 6, 1875. Also called **St. Edmunds**, **St. Edmunds Pippin** and **Early Golden Russet**. Extremely high-quality late-September dessert fruit. Medium-sized roundish-conic fruit is similar in shape to Golden Russet but with a much lighter uniform yellowish-tan coloring. The crisp fine-textured creamy-white-yellowish juicy aromatic flesh has a sweet subacid pear-like flavor. Always one of the most popular apples at our Common Ground Fair taste tests. Makes good cider too. The earliest russet to ripen in central Maine every year. Not a keeper. Blooms early midseason. Z4-7. **ME Grown**.

142A St. Edmunds Russet, $25.00



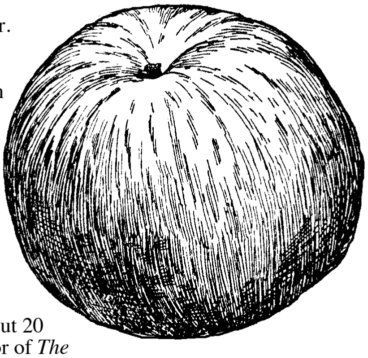
Smith Cider Mid-Late Fall. Thomas Smith introduction, Buckingham, Buck's County, PA, about 1800. Also called **Cider Apple**, **Choice Kentuck** and **Popular Bluff** among many others. Long ago quite popular in the Ohio Valley, mid-Atlantic and southern states. While its name would indicate a cider apple, it was often preferred for dessert and cooking. Medium-sized roundish oblate conic fruit is splashed and striped with red. Flesh is tender, juicy, crisp and mildly subacid. Vigorous spreading highly productive, annually bearing tree. Thought to have been named for a cider maker who "rolled out the barrels" up against a tree next to his mill. Others suggest it was named for a Loyalist prisoner who planted a tree in Winchester, PA, while incarcerated during the American Revolution. Either way, it's in our trials here in central Maine. Keeps until late winter. Blooms late. Probably Z5-8. **ME Grown**.

143A Smith Cider, $25.00

Stoke Red Late Fall. Bittersharp cider apple. Also called **Neverblight**. May have orginated in Rodney Stoke or near Wedmore, Somerset, England. Medium-sized round-conic fruit covered with dark red radiating stripes that blend into a nearly solid glowing red and pink blush. Some russet dots and netting. Very attractive. Sharp juice with some astringency. Very sharp cider. Consistent heavy cropper and a reputation in the U.K. for resistance to pests and disease. (That's over there, mind you.) Pick late in the fall and combine with other late varieties. Booms late season. Z4-6. **ME Grown**.

144A Stoke Red, $25.00

Striped Harvey Mid-Late Summer. Oxford County, ME. Large round all-purpose fruit. Pale yellow-green overlaid with red streaks, which turn solid red in the sun, and covered with a bluish bloom. Moderately crisp juicy white flesh. Very similar in appearance to Wealthy. Extremely rare. The first and only documentation of the apple appeared in 1852 when it was exhibited at the Oxford County Agricultural Society by John G Robinson of Greenwood, ME. Rediscovered in Oxford County about 20 years ago by George Stilphen, author of *The Apples of Maine*. Mr. Stilphen generously provided us with scionwood some years ago. We grafted trees and planted one in the Maine Organic Farmers and Gardeners Heritage Orchard in Unity. Our scionwood comes from that tree. Z4-6. **ME Grown**.



145A Striped Harvey, $25.00

Sweet Sixteen Fall. MN 1630 (MN447 x Northern Spy) U Minn, 1979. Whenever anyone eats a Sweet 16 for the first time, you know they will be surprised. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet, nutty and spicy flavors with slight anise essence, sometimes described as cherry, vanilla or even bourbon. I always love Sweet 16 season. Truly excellent fresh eating, although it is too sweet for some palates. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Grower-friendly. Reaches its best flavor and texture in northern districts. Some resistance to scab. Keeps till midwinter. One of the wonderful progeny of (#**118**) Frostbite. We hope to introduce more of them! Blooms mid to late season. Z3-6. **ME Grown**.

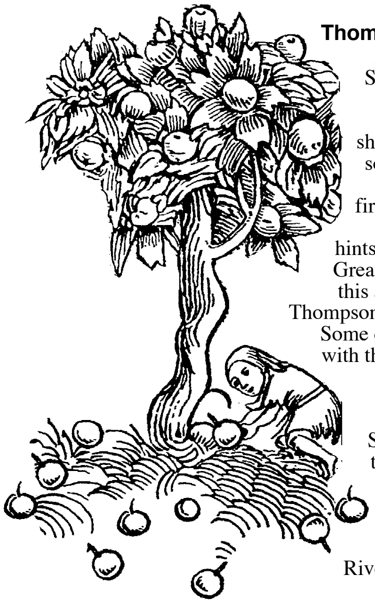
146A Sweet Sixteen, $25.00

this is my new website

Fruit growing websites

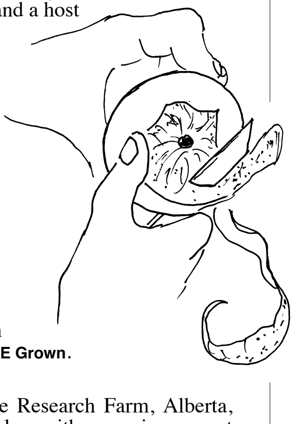
Whether you use organic or conventional orchard practices, several websites can provide you with a great deal of information about insect and disease pressure, spray timing, frost predictions and a whole lot more. Here are a few of the best:

<http://umaine.edu/ipm/programs/apple/> (or search for "Maine apple IPM")
<http://www.fruit.cornell.edu/> Cornell University
<http://orchard.uvm.edu/> Vermont
<http://www.groworganicapples.com> Organic Orcharding



Thompson Summer. Seed from Barre, MA, unknown parentage. Mercer, Somerset County, ME, 1816. Early season eating and cooking apple, ripens in August. Round-conic shape reminiscent of Red Delicious, solid red overspread with stripes of darker red. Glistening crystaline firm white flesh with a pink hue just below the skin. Sweet flavor has hints of plum and pear. Does not keep. Great confusion and passion surrounds this apple that was introduced by John Thompson, one of Mercer's earliest settlers. Some claim that the fruit is synonymous with the Massachusetts apple, Williams. (They are quite similar.) Others claim it's synonymous with John Thompson's other introduction, Somerset of Maine. (Not!) At least two Thompson trees that we know of are still standing in Mercer, an exceedingly old one on Bacon Road and another more recently grafted at Francis Fenton's Sandy River Orchard. Rare. Z4-6. **ME Grown**.

147A Thompson, $25.00

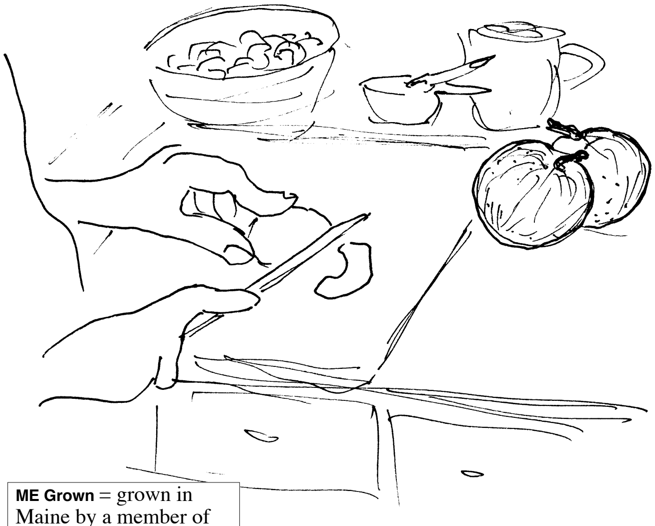


Tolman Sweet Fall-Early Winter. Unknown parentage. Sometimes called **Talman Sweet**, **Taulman Sweet**, **Tomey Sweet** and a host of other variations. Possibly from Dorchester, MA. Extremely old. One of the first American apples and one of the few to remain popular for centuries. Truly an all-purpose fruit, used for cooking, dessert and even animal fodder. Once popular for "pickling, boiling and baking." Interesting peculiar sweet strange flavor you'll never forget once you've eaten it. Likely *the* most recognizable flavor of any apple. It's sort of a seventeenth-century taste. Some like it and some don't. I do. Moderately juicy medium-sized greenish fruit, often marked by a suture line running from top to bottom and sometimes with a bit of a blush. Long-lived heavy-bearing medium-sized vigorous tree. Still quite common in small old central-Maine farm orchards. Z4-6. **ME Grown**.

148A Tolman Sweet, $25.00

Trailman Summer. Trail x Osman. Beaverlodge Research Farm, Alberta, Canada, 1973. Wonderfully flavored crabapple, with a spicy sweet exceptionally crisp and crunchy golden-yellow flesh. The size and shape of an egg. Visitors who try it here in our orchard usually fall in love instantly. Some have called it the best summer apple they have ever tasted—some even called it their favorite apple of any season. It is good! Fruit has a translucent yellow skin, a porcelain finish, a white bloom and sometimes a brownish-red blush. Ripens about August 20 in central Maine and hangs on the tree for two weeks without softening. Precocious annually productive moderately vigorous somewhat drooping spreading tree. Exceedingly hardy, possibly to Zone 2. Might be tasteless south of about Zone 5. Blooms early. Z2-4. **ME Grown**.

149A Trailman, $25.00



ME Grown = grown in Maine by a member of the Fedco growers coop.

The Perfect Apple Pie

There may be nothing as famously American as the apple pie. Unlike modern varieties, selected for fresh eating and long-distance travel, many of our most famous "heirloom" apples were cultivated for their culinary qualities. Dozens of recipes can still be found in old books ranging from apple snow to apple dowdy, apple ginger, bird's nest pudding, baked apples, and, of course, apple pie. Like the American population, the apple pie is a melting pot of ingredients that originated around the world: wheat from the Middle East, butter from Europe, cinnamon from Sri Lanka, nutmeg and cloves from Indonesia, sugarcane from southeast Asia, and apples from Kazakhstan.

While many cooks pride themselves on the perfect crust, it is the apples themselves that are key to success. In a pie, the best apples will be flavorful, firm and melting but not rubbery, maintaining their shape so the crust doesn't sink. Some pie apples are known as "all-purpose" varieties meaning just that. Some, but not all, also make excellent applesauce. Some are also very good fresh eating, while others are not for eating "out of hand." With the right apples, it is easy to make a great pie from August to April or maybe even May. Not many grocery stores offer pie apples these days. Fortunately you can find good varieties in a few stores and at some commercial orchards. And, of course, you can grow your own.

Many cooks favor pies with a mix of varieties. We generally make single-variety pies because we're always looking for that perfect pie apple. Although many pie apples tend to be tart when eaten fresh, tartness is no guarantee. The only sure way to determine if a "new" apple will be good in a pie, is to make a pie. We make a lot of single-variety pies. We try them out on our family and friends. Usually they don't mind.

A Basic Apple Pie Recipe

A Simple Crust

Mix a cup and a half of flour and 1/2 cup butter cut up into bits. Add 4 Tbsp water. (Depending on the time of year, you might need more or less water.) Mix it all up and form a ball while handling as little as possible and refrigerate for 2–3 hours. Cut the ball in half, knead a bit and then roll out one half and then the other. One will be your top—the other will be the bottom. Or use any good pie crust recipe!

The Pie Filling

Slice several apples. Peeling is optional. Mix the apple slices with 2–3 Tbsp flour, about 1/3 cup sugar, 1 tsp cinnamon, 1/2 tsp nutmeg and 1/4 tsp cloves. Pile the apple mixture on top of the bottom crust, mounded up as high as you like. Put on your top crust. Decorate the pie with leftover crust. We like to make cut-outs and apply them to the top. Punch several vent holes with a fork. Bake for 10 min at 400° and then 40 min at 350–375°.

What apples make the best pies?

Below is a selection of the best pie apples. Some are in this year's catalog. Others were offered in past catalogs as noted. They may be lurking somewhere in your orchard. Some will be offered in the future. Try any of these as single-variety pies, or mix and match. When creating your own pie-apple orchard, remember to select varieties that will ripen summer through fall and into winter. You won't go wrong with any of these. Tastes vary, of course, but our personal favorites are marked with an asterisk *.

Late Summer

Cole's Quince * (2002, 02, 07)
Duchess of Oldenburg * (this year)
Moses Wood (2003, 06, 07)
Red Astrichan (2006, 07, 09)

Late Summer-early fall

Gravenstein * (this year)
New Brunswicker (this year)
Somerset of Maine (2012)
Spice Sweet * (2014 !)
Wealthy * (this year)

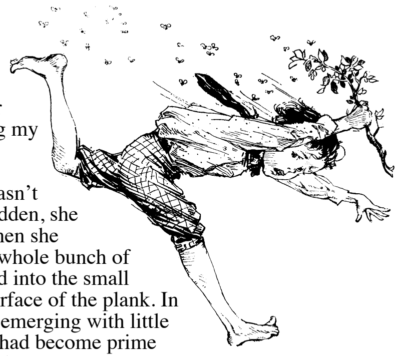
Mid fall

Grimes Golden (this year)
King David (2004, 06, 07)
Red China * (2014 !)
Redfield * (this year)
Twenty Ounce (stay tuned!)
Smokehouse (2002, 04)

Winter

Baldwin (this year)
Black Oxford * (this year)
Briggs Auburn (2004-07)
Caville Blanc D'Hiver (this year)
Northern Spy * (this year)
Rhode Island Greening (2012)
Scott Winter * (2005, 06, 09)
Yellow Bellflower (2007, 09)

Supporting Native Orchard Pollinators



From May to October we eat lunch at a rough unfinished pine-plank dining table on our porch. One day as I was eating my leftovers I noticed a tiny bee buzzing around my plate. She didn't look threatening so I wasn't too concerned. Then, all of sudden, she disappeared. Into the table! Then she reappeared. Lo and behold: a whole bunch of these tiny creatures had moved into the small worm holes that pepper the surface of the plank. In and out they'd go, sometimes emerging with little bits of wood. Our lunch table had become prime habitat for solitary pollinating bees.

The honey bee (*Apis mellifera*) is facing great challenges these days. Native pollinators such as Mining (*Andrena*), Mason (*Osmia*) and Plaster (*Colletes*) bees are playing an increasingly important role in the orchard. But they can't live on apple blossoms (or pine bits) alone! You don't need to set out old plank tables, but you can purchase or construct "mason bee" houses. And you can populate your gardens and orchard with successional food sources to entice them to stick around year after year.

We have been cultivating an assortment of plants in our orchard to feed all these pollinators. In some instances, this means setting out plants or sowing seed. In other cases, it simply means leaving the native plants alone and allowing them to thrive. In other words, hold that scythe and lawn mower. Resist the temptation to make your orchard look like a golf course. Let Nature do its thing.

Guidelines for the best pollinator habitat

Maximize native plants: That's what the bees are looking for.
Maximize species: Three or more species all blooming at once.
Maximize color: Three or more colors blooming at once. Blue, purple, white and yellow are the best.
Maximize variety: Lots of flower shapes.
Maximize clump size: Create masses at least 4' in diameter rather than the odd lonely plant here and there.

Selected Native Plants for Feeding Your Pollinators

Spring Blooming

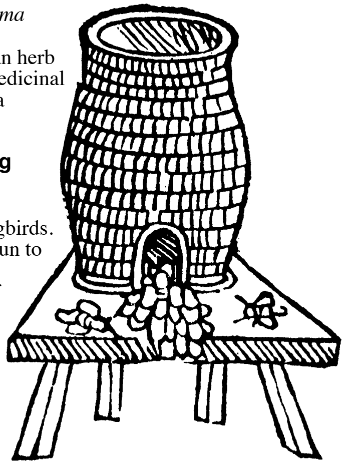
Geranium maculatum, *Geranium bicknellii* (Wild Geranium) Nice border plant for shady gardens. Visited especially by Andrena bees. Ripening seeds attract birds, but deadheading will prolong bloom time.
Lupinus perennis (Wild Lupine) Nitrogen fixer. Supports the endangered Karner Blue butterfly.
Taraxacum officinale (Dandelion) No need to plant it—just don't pull them out! Important early-pollinator feeder. Nutrient-rich leaves are wonderful to eat. Use roots medicinally as a diuretic.

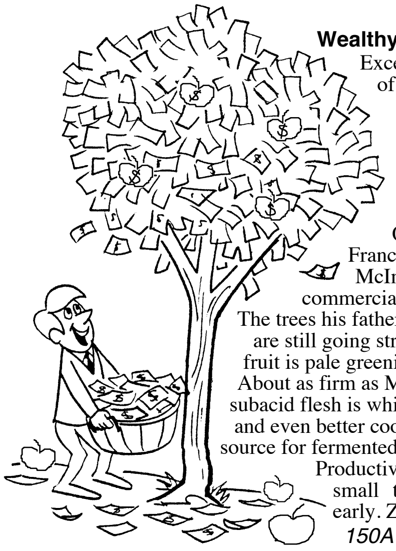
Summer Blooming

Asclepias syriaca, *Asclepias tuberosa* (Milkweed) Especially good for all pollinators. Sustains nectar-seeking insects, and hosts larval butterflies. Many medicinal uses, including sap as a remedy for poison ivy.
Eupatorium maculatum (Joe-Pye weed) Good choice for native bees. Provides both nectar and habitat to insects and butterflies. Thrives in moist environments. Tolerates partial shade.
Monarda fistulosa, *Monarda didyma* (Beebalm) Especially good for pollinators. Can be consumed as an herb similar to oregano, or used as a medicinal infusion. Leaves contain thymol, a natural antiseptic.

Summer to Autumn Blooming

Lobelia siphilitica (Blue lobelia) Attracts many native pollinators, including butterflies and hummingbirds. Prefers moist soils, tolerates full sun to shade.
Solidago spp. (Goldenrod) One of most important native pollinator feeders. Attracts more pollinators than most other plants, including 19 species native to Maine.
Symphyotrichum novae-angliae, *Symphyotrichum novi-belgii* (Aster) Flowers until frost. Supports bees as well as butterflies. Prefers moist soils and partial shade.





Wealthy Fall. Cherry crab seedling. Excelsior, MN, 1860. A Maine native of sorts, the seed having come from Bangor. Superb all-purpose fall apple, one of the most famous of all hardy varieties. With its perfect texture and complex flavors, Wealthy is considered to be one of *the* best apples. I agree. Our 97-year-old friend, orchardist Francis Fenton, believes Wealthy—not McIntosh—deserves to be the favorite commercial apple of northern New England. The trees his father planted in Mercer 103 years ago are still going strong. Round-oblate medium-sized fruit is pale greenish-yellow streaked with carmine. About as firm as McIntosh. Tender very juicy sweet subacid flesh is white, often stained red. Good eating and even better cooking. Wonderful pies! Good acid source for fermented cider. Ripens over a long period. Productive moderately vigorous long-lived small to medium-sized tree. Blooms early. Z3-4. **ME Grown.**

150A Wealthy, $25.00

Wickson Fall. Esopus Spitzenburg x Newtown. Albert Etter introduction. Humboldt County, CA, 1944. One of the most flavorful apples we list. Small roundish blushed bright red fruit is crisp, juicy, tart, tangy and spicy. Extremely high in both sugar and acid. Sugar level of the juice is around 25%. Highly recommended for dessert, juice, and as a sharp acid source in fermented cider. In September, the tree looks like a mass of cherries. The unsung and generally unknown Albert Etter, who introduced Wickson as a champagne variety, was one of the great 20th-century plant breeders. He also introduced Fairfax, usually considered to be the best-flavored of all strawberries. Although now apparently lost forever, Fairfax lives on as one of the parents of the much-beloved Sparkle. Wickson bears young, heavily and annually. Blooms midseason. Z4-8. **ME Grown.**

151A Wickson, $25.00

Williams Pride Summer. Co-op 23 [PRI 2845-1=(PRI 1018-101 x NJ50)] PRI Coop, 1988. Probably the most popular summer apple among the newly developed disease-resistant introductions. It's actually crisp, which is rare for a summer apple. Deep purple roundish-conic irregularly shaped fruit, highlighted with areas of glowing rosy red and covered with a thin bloom. Light cream-colored flesh, with red staining just under the skin, is firm, crisp and very juicy. Has a nice acidic blend of tart and sweet, reminiscent of Fameuse. Long ripening period means you don't have to eat them all at once. Vigorous annually bearing tree with some biennial tendency. Well-shaped with strong right-angled branches that do not require careful training. Highly resistant to fireblight, cedar apple rust and sooty blotch, resistant to powdery mildew. Scab immune. Blooms early-midseason. Z4-7. **ME Grown.**

152A Williams Pride, $25.00

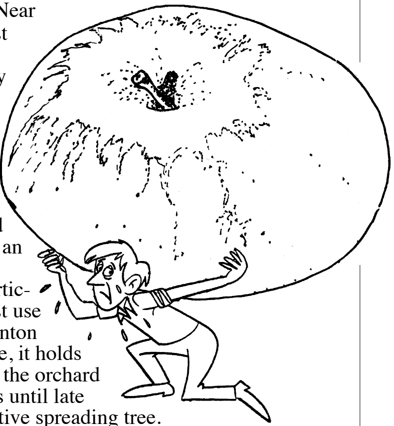
Winekist Summer. Unknown parentage. Morris Towle introduction, Winthrop, ME, 20th c. A very high-quality red-fleshed all-purpose fruit. Skin is wine red with areas and stripes of darker red and very small white dots; the overall effect is dark red by mid July. Very juicy coarse firm flesh is almost solid beet red: a real eye popper! Ripens about September 10 in central Maine. Medium-small fruit is quite good for fresh eating and a great addition to cider or sauce. Leaves are tomentose (soft and woolly) and have a dark reddish cast to them. Blossoms are light pink. Wood, when you cut into it, is pink. Tree is a natural semi-dwarf. Developed by the orchardist and variety collector Morris Towle (1911-1993). Saved for posterity by orchardist and collector Earland Goodhue of Sidney. Bears young and annually. Blooms early to midseason. Z4-6. **ME Grown.**

153A Winekist, $25.00

Winesap Winter. Heirloom of uncertain origin, possibly western NJ. One of the oldest and most revered of all American varieties. Conic and somewhat rounded fruit is almost entirely covered with reddish blush and deeper red stripes, sometimes with a prominent pinkish russet splash and some red russet netting. True to its name, one of the best for cider. Tart reddish juice. Also considered outstanding for pies. Although not normally associated with northern New England, over the years many old-timers have told me about trees they remember from their youth and old trees can still be found here and there. Adaptable to many soils and climates. Keeps until early spring. Z4-7. **ME Grown**.

154A Winesap, $25.00

Wolf River Fall. Alexander seedling. Near Wolf River, WI, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round-oblate fruit. Pale yellow-green skin mostly covered with pink, deep red and bright crimson. Almost always has a vivid yellowish-greenish russety splash around the stem. Creamy-white coarse firm-but-tender flesh. Aromatic subacid flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Its absolute best use is in the "walk-about pie" that Carol Fenton invented. More like a date bar than a pie, it holds together in your had as you stroll about the orchard on a crisp fall afternoon. Perfect! Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season Z3-5. **ME Grown**.



155A Wolf River, $25.00

Yarlington Mill Fall. Medium bittersweet cider apple. Yarlington, near North Cadbury, Somerset, England, 1898. Once common in farm orchards of central Somerset. Steve Wood's other favorite bittersweet. Medium-sized yellow conical fruit with a pinkish blush and over-spreading darker red stripes. Considered an all-round excellent variety: reliable, productive and adaptable to varying conditions. Rich brown low-acid mild lovely aromatic fruity cider, not aggressively tannic. Above-average sugar content. Slow to medium fermentation. Somewhat gangly tree with a lot of blind (non-productive) wood. You may need to head back the leader in early years to encourage strong laterals. Midseason bloomer. Z4-6. **ME Grown**.

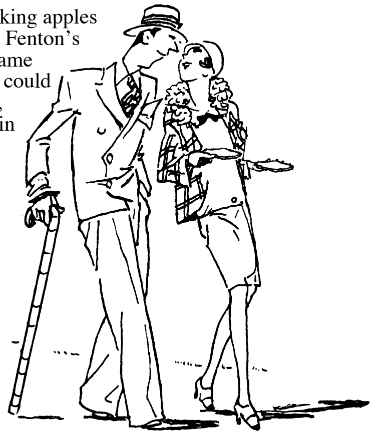
156A Yarlington Mill, $25.00

Zestar Late summer. (State Fair x MN 1691) U Minn, 1999. Extremely hardy high-quality mid-late summer dessert apple. Medium-sized blocky round yellow-green fruit, partially to completely covered with red stripes and solid red. Juicy and crisp with a well-balanced acid/sweet flavor. Michael Phillips, New Hampshire orchardist and author of *The Apple Grower*, said to me, "When you tree-ripen Zestar, it's fabulous." Northern Maine orchardist Steve Miller added, "That's an impressive apple. From the standpoint of appearance and quality, they're first rate." Keeps in cold storage up to 7 weeks. Tree has moderately vigorous upright form, excellent horizontal branching habit makes it easy to train and prune. Precocious and annual-bearing. Blooms early season. Z3-5. **ME Grown**.

157A Zestar, $25.00

Walk About Apple Pie

One cold and rainy day after picking apples at Sandy River Orchard, Francis Fenton's daughter Carol Fenton Gilbert came out with a special treat. Nothing could have been better than this warm, gooey, hand-held pie that melts in your mouth. We are so pleased Carol gave us the recipe to include here.



$2^{1}/_{2}$ cups flour
1 Tbsp. sugar
$^{1}/_{2}$ tsp. salt
1 cup shortening or butter
$^{2}/_{3}$ cup milk
1 egg, separated
1 qt sliced Wolf River apples
1 cup sugar
1 tsp. cinnamon
2 Tbsp. butter

Mix dry ingredients, then cut in shortening. Beat together egg yolk and milk. Add to flour mixture. Toss apples separately with sugar and cinnamon. Roll out half of the dough to fit a greased jelly roll pan. Spread apples on top and dot with butter. Add top crust and cut slits. Brush top with egg whites and sprinkle with sugar. Bake at 400° for 30 minutes. Cut into conveniently sized portions when cool.

Scionwood We offer scionwood from a wide selection of fruit trees including many listed in this catalog. Price is $3.00 per stick (about 8") plus shipping. To order scionwood or rootstock for early shipment, send us a SASE requesting a scionwood order form or download it from the Fedco Trees website. Deadline for ordering scionwood is February 22, 2013. We will ship around March 20.

Hardy Rootstocks We consider these to be some of the best rootstocks for home or commercial use. Any of these produces fruit suitable for wildlife without grafting. For rootstocks not listed, or for larger calipers or larger quantities, please write for information. We also offer grafting supplies in the Organic Growers Supply section of the Seed catalog or online at **www.fedcoseeds.com**.

Please note! Because of the way they are propagated, clonal rootstocks (B118, M111, G11, B9 apples and OHxF97 pear) rarely come with more than a few roots. We highly recommend planting clonal rootstocks for a year in your garden or nursery before grafting them.

We do our best to provide $^{1}/_{4}$" caliper stock. Because of factors beyond our control (such as weather!) stock may be $^{3}/_{16}$–$^{3}/_{8}$".

You may order rootstock to be shipped around March 20 by using the scionwood order form, obtained by downloading it from our website or requesting it with a SASE. Rootstock ordered online or on the regular order form in this catalog will be shipped with the rest of the Tree order in April.

Please join us Sunday, March 24, 2013, at the Maine Tree Crop Alliance annual Scionwood Exchange and grafting workshop in the exhibition hall of MOFGA's Common Ground Education Center in Unity. MOFGA also offers a full range of organic orcharding classes; see www.mofga.org for details.

***Malus* 'Antonovka'** (Apple) Hardy Russian seedling rootstock for standard-sized apple trees. Z3-5.

159A Malus Antonovka , bundle of 10 for $23.00

***Malus* 'Budagovsky 118'** (Apple) [Moscow Pear x (M8 and M9 pollen)] Michurinsk College of Ag, Michurin, Russia. Also called **Bud 118** or **B118**. Semi-dwarf rootstock, similar in size to M111 (about 85–90% of standard). Sometimes referred to as a "semi-standard" or even a standard. More productive than Antonovka, similiar to M111 in that respect. Not considered precocious, but may fruit sooner than trees on Antonovka. Very winter hardy and soil adaptable. Generally not used in commercial orchards due to its large size. Resistant to collar rot. Unknown susceptibility to fireblight. Z3.

160A M. Budagovsky 118, bundle of 10 for $25.00

***Malus* 'M111'** (Apple) [Northern Spy x Merton 793 (Northern Spy x East Malling11)] Collaborative introduction of East Malling Research Stn and the John Innes Institute, Merton, England, about 1950. Technically named MM111, the MM refers to Malling and Merton. Very popular semi-dwarf rootstock produces a tree about 65–80% of standard. No staking necessary. Fruits at a slightly younger age than standards. Well-anchored and adaptable to a wide range of soils. Woolly-aphid resistant. Not nearly as long-lived as standards. Hardy to Z4, maybe Z3.

161A M111, bundle of 10 for $25.00

***Malus* 'Geneva 11'** (Apple) Also called **G11**. Cornell University introduction, NY. Dwarf rootstock produces a tree about a third the size of standard—about halfway between M9 and M26. Suckers only slightly, moderately susceptible to woolly apple aphid. Excellent fireblight resistance. Requires staking, weeding and watering in most locations. Z4?

162A Malus Geneva 11 Dwarf, bundle of 10 for $28.00

***Malus* 'Budagovsky 9'** (Apple) [M8 x Red Standard (Krasnij Standart)] Also called Red-leafed Paradise or **Bud 9**. Michurinsk College of Agriculture, Michurin, Russia, 1946. Dwarfing rootstock, produces a tree about a quarter the size of a standard tree. Highly productive and precocious with high levels of soluble solids and large fruit size. Very hardy though not as hardy as Antonovka. In most locations, requires weeding, mulching, staking and irrigation. Space trees 7–8' apart in rows 14–15' apart. Some resistance to fireblight. Z4.

163A M. Budagovsky 9, bundle of 10 for $25.00

Prunus americana (Plum) Seedling rootstock for American, Japanese or hybrid plums. Also recommended for grafting peaches. Seedling plum produces very decent 1" fruit without grafting. The best pollinator for hybrid plums. (See explanation in plum section on page 26.) Z3.

164A Prunus americana , bundle of 10 for $26.00

***Prunus avium* 'Mazzard'** (Cherry) The rootstock we use for grafting sweet and pie cherries. Shallow spreading root system. Longer lived than Maheleb though not as hardy. Does not do well in heavy poorly drained soils. Z4/5.

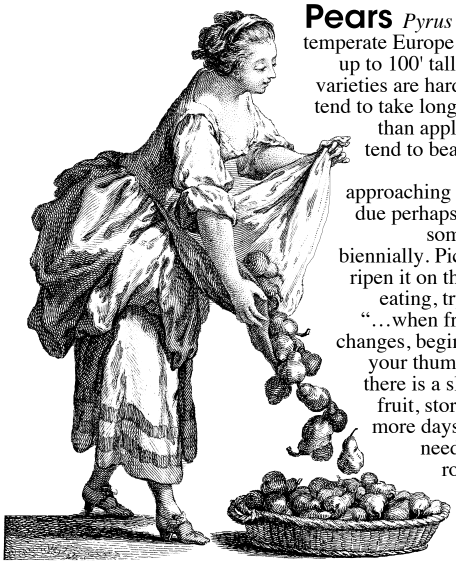
165A Prunus avium Mazzard, bundle of 10 for $25.00

***Prunus cerasifera* 'Myrobalan'** (Plum) Seedling rootstock for European plums. Not recommended for American or hybrid plums. Z3.

166A Prunus cerisifera Myrobalan, bundle of 10 for $25.00

***Pyrus* 'Old Home x Farmingdale 97'** (Pear) (Old Home x Farmingdale) Produces a vigorous hardy well-rooted almost-standard-sized tree. Superior to *Pyrus communis* in numerous ways. We are switching over to "97s" at Fedco. Z3/4.

167A Pyrus OHxF97, bundle of 10 for $26.00



Pears *Pyrus communis* are native to temperate Europe and Asia and can grow up to 100' tall in the wild. Many pear varieties are hardy in New England, but tend to take longer to come into bearing than apples. Further south, pears tend to bear annually. However in Maine, where they are approaching their northern limit and due perhaps to our harsher climate, some varieties tend to bear biennially. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try Ed Fackler's method: "…when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give,' pick all the fruit, store at or near 35° for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2–4 days which allows them to ripen to peak flavor." Pear blossoms are less attractive to bees than apple blossoms, so pears should be planted closer together to ensure pollination. Although some pears appear to be self-pollinating, **we recommend a second variety for pollination**. Bloom dates for all varieties are similar. Plant pear trees 15-20' apart. (3-6' trees)

Bartlett Late Summer. (Williams' Bon Chrétien) Seedling found in Aldermaston, England. Introduced to the U.S. in the late 1700s. Most widely planted and well known of all pears, accounting for 75% of the U.S. commercial crop. Adaptable to many climates and soils. Large greenish-yellow classic oblong obtuse-pyriform fruit; very good quality. Full reliable annual crops. Large vigorous easy-to-grow long-lived tree bears young. I used to think you couldn't grow Bartlett in central Maine, but I've changed my mind over the past few years. Now I recommend it as a good choice south of Bangor. Susceptible to fireblight, though that won't be up here until global warming catches up with us. **Will not pollinate Seckel.** Z4. **ME Grown**.

168A Bartlett, $25.00

Bosc Fall. Seedling in Lourain, Belgium, 1807. Also called **Beurre Bosc**. Oblong acute-pyriform, or large and long-necked; dark rich yellow covered with cinnamon-brown russet. Distinctive sweet rich spicy buttery flavor. Melting juicy tender white flesh has smooth texture and a pleasing aroma. Somewhat gritty around the core. Good pollinator. Large vigorous upright spreading tree bears huge crops annually. A longtime favorite throughout central Maine. Z4. **ME Grown**.

169A Bosc, $25.00

Clapp Favorite Mid-Late Summer. Thought to be Bartlett x Flemish Beauty. William Clapp introduction, Dorchester, MA, 1840. Hardy pear common in Maine for well over 100 years. Very juicy melting sweet fruit with that absolutely perfect "pear flavor" for fresh eating. Medium-large fruit is pale lemon yellow, mottled bright red. Round-bodied with a short neck. Obovate ovate slightly obtuse pyriform! Medium-firm fine-textured with granular center. Pick before completely ripe and finish indoors (tendency to soften at the center after ripening). Makes a great pear wine. A fabulous 11' tall bronze statue of the pear stands next to a KFC in Dorchester's Edward Everett Square, just a quarter mile from the Clapp farm on Boston Street. Z4. **ME Grown**.

170A Clapp Favorite, $25.00

Pears are generally easy to grow in New England. One challenge growers sometimes face is **pear leaf blister mites**. The microscopic mites live in the leaf tissue. You know you've got them if your pear leaves are disfigured by small green-yellow-brown blistery bumps. You'll see them if you have them. Two organic controls are an oil and lime sulfur spray in Oct–Nov and a dormant oil spray in the spring just before the buds open.

Comptesse Clara Frijs Late Summer. Denmark, 19th c. Very old delectable dessert pear, first described in 1858 by JA Bentzien in the Danish garden journal *Dansk Haugetidende* and thought to be from the village of Skensved. High-quality dessert pear. Medium-sized yellowy-green oblong obovate pyriform rather thick-skinned fruit sometimes with a very slight pink blush—more like a spot of rouge. The buttery aromatic flesh is firm but not crisp with no grit cells. Juicy but not dripping. You can eat it in the car. You can eat it right down to nothing. Keeps for a month. Solid rugged hardy tree. Z4. **ME Grown**.

171A Comptesse Clara Frijs, $25.00

Early Pear Summer. Uncertain origin. Very tasty soft-fleshed dessert pear. Medium-sized attractive fruit resembles Vermont Beauty in shape (obovate acute-pyriform) and size. Light yellow skin, sprinkled with small brown dots and a flashy red blush. The earliest-ripening variety we know. Earlier than Summercrisp, ripening in mid-August in central Maine. As with the summer apples, it does not keep. Enjoy it while it's here. Introduced to us several years ago by one of Maine's great pear growers, Howard Wulf. He calls it Early Pear or *Fruhbirne* in German. Howard believes that it may be the same as **Wilder Early**, a nineteenth-century Rochester, NY, introduction. Fully hardy in central Maine. Z4.

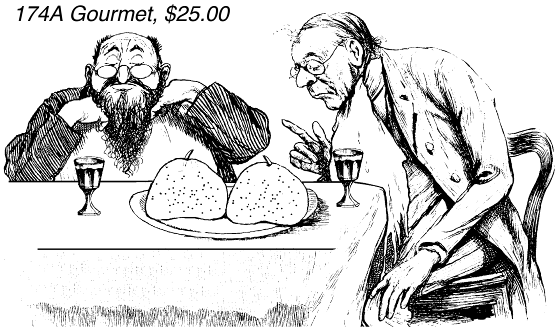
172A Early Pear, $25.00

Giffard Summer. Chance seedling discovered by Nicolas Giffard, Foussieres, France, 1825. Introduced to the U.S. about 1850. Also called **Beurre Giffard**. Very high-quality dessert pear ripens in midsummer just before Clapp Favorite. Soft melting slightly coarse flesh is very similar to Bartlett. Delicious. One of the first pears to ripen in our orchard. Pick them a little green and ripen them inside or pick them daily just as they ripen. Medium-sized acute-pyriform fruit has tender greenish-yellow skin with a dotted red blush and conspicuous greenish or russet dots. Small core. The tree is medium sized, vigorous, spreading and productive. Extremely hardy. Z3. **ME Grown**.

173A Giffard, $25.00

Gourmet Late Summer. SD F15 x Ewart. SD State U, 1988. If you like the idea of Asian pears but have been scared off by lack of flavor and hardiness, try Gourmet. Although similar in texture to the Asians, Gourmet's sweet yellow flesh has more flavor and less wateriness. It's a crisp pear that melts in your mouth. I've yet to become thrilled with many Asians I've tried, but I continue to be a big fan of Gourmet. Greenish-yellow thick tender skin with russet dots on 2" obovate obtuse-pyriform fruit. A very nice unusual addition to the mix of summer fruits. Produces a good crop in our orchard annually. Very hardy medium-sized upright tree. Sterile pollen will not pollinate other trees. Z3.

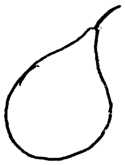
174A Gourmet, $25.00



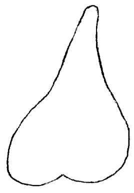
Making pear sauce and applesauce in the oven

Tom Vigue learned from an old-timer how to make syrupy fruit sauces and butters by roasting the fruit. We love this recipe. It requires no sugar, spices, cream or ice cream.

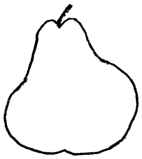
Fill a large (or huge) roasting pan with whole pears or apples with only the stems removed, as long as the fruit is of nice quality and doesn't need more trimming. Roast at approximately 350° for a couple of hours, checking occasionally to mash down any fruit before it scorches. After two hours or more, when fruit is soft, process through a food mill to remove skins and cores. At that point you will have a sauce. Return sauce to the oven and roast for a few more hours, depending on how concentrated you want it. A very concentrated sweet fruit butter eventually results without ever burning the bottom of the pan. Serve "as is" for dessert.



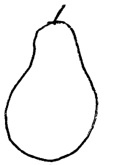
Acute
Pyriform



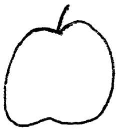
Oblong
Acute
Pyriform



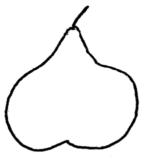
Oblong
Obovate
Pyriform



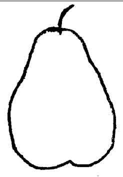
Oblong
Obtuse
Pyriform



Obovate



Obovate
Acute
Pyriform



ovate
Pyriform

Luscious Early Fall. SD E31 x Ewart. SD State U, 1967. One of the few recent pear introductions that deserves a place in the home orchard. Produces annual crops of delicious medium-sized oblong obovate pyriform fruit. Bears so heavily that it's apt to break branches. The soft fine extra-juicy off-white flesh is sweet and flavorful with almost no grit cells. Thin yellowish skin is covered with small tan dots. Anecdotal evidence suggests that it may crop best when grown near Bartlett or one of the Asian pears. Although some literature warns that Luscious itself is a poor pollinator, we've been happy to have it at our place. Z3.

175A Luscious, $25.00

Nova Late Summer. Hammond, NY. Discovered and introduced by Bill MacKentley of St Lawrence Nurseries, Potsdam, NY. Large yellow roundish dessert pear with melting juicy flesh. Chris Blanchard's favorite pear. For decades he and Liz Lauer have been trialing a wide assortment of pears a few hours north of here in Penobscot County. He described it to me as "large with smooth creamy texture and a thin skin. Wonderful dessert pear. Also the best canning of our 12–14 varieties." Holds its shape in the jar. Very hardy, though from our trials in northern Aroostook County, not quite as hardy as Patten or Stacyville. Appears to be fireblight- and scab-free. Z3. **ME Grown**.

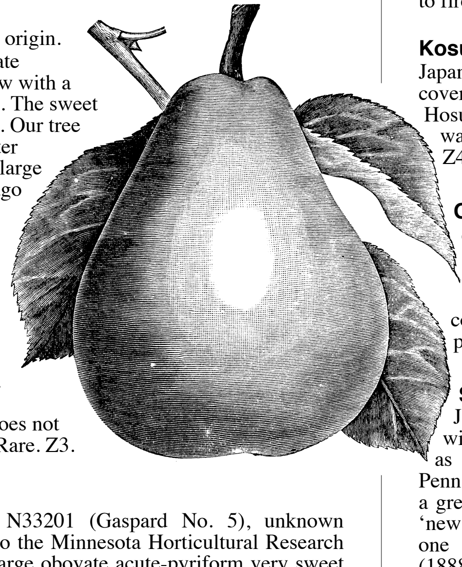
176A Nova, $25.00

Patten Late Summer. Orel 15 x Anjou. CG Patten introduction, Iowa St U, 1922. The best-quality large hardy pear available. Very good fresh eating with sweet "high flavor." Fine-grained soft flesh has minimal grit cells. Vaguely reminiscent of Bosc in size and shape. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willowy branches very flexible, won't break even under the weight of its heavy crops. Scab resistant. A good pollinator for other varieties. Fared incredibly well during the cold "test winter" several years ago when hundreds of northern Maine pear trees died to the roots. Extremely hardy and highly recommended for coldest districts. Z3. **ME Grown**.

177A Patten, $25.00

Seckel Late Summer. Seedling near Philadelphia, PA, early 1800s. Sometimes called **Sugar Pear**. Often considered the best-flavored of all pears; even the skin is delicious. Small obovate fruit is yellowish-brown russeted with slight red blush. Juicy, spicy, distinctive and aromatic. Eat ripe off the tree or pick firm and ripen later. We use Seckels to make our baked "applesauce." It's wonderful. Very productive annual-bearing large tree, easy to grow. *The* most reliably bearing fruit tree we have. Scab- and fireblight-resistant. **Will not pollinate Bartlett.** Z4. **ME Grown**.

178A Seckel, $25.00

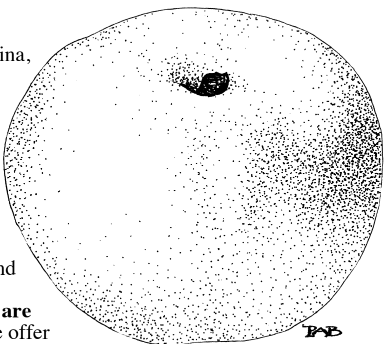


Stacyville Late Summer. Unknown origin. Stacyville, ME. Medium-sized obovate obtuse-pyriform pears are light yellow with a beautiful orange to greyish-red blush. The sweet fruit has a delicious citrusy aftertaste. Our tree began producing only a few years after planting. Now at age 18, it produces large crops of fruit annually. Many years ago friends told me about the pear and insisted that I make the trip to Stacyville in southern Aroostook County. When I finally saw it myself, I thought that the 50' tall vase-shaped tree was an elm. That tree, held together with cables, was extremely old but still bearing huge crops. Appears to be self-pollinating. Disease-resistant, extremely hardy, annual-bearing and very vigorous. Does not keep for long; use them up quickly! Rare. Z3. **ME Grown**.

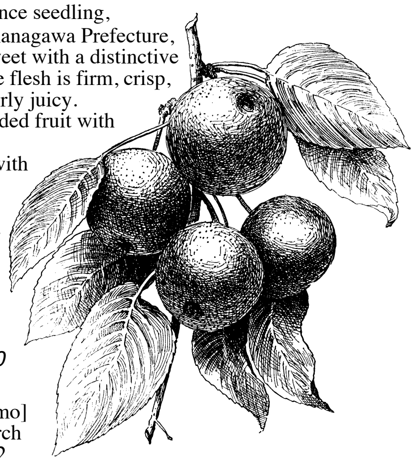
179A Stacyville, $25.00

Summercrisp Midsummer. MN N33201 (Gaspard No. 5), unknown parentage. U Minn, 1986. Brought to the Minnesota Horticultural Research Station by John Gaspard in 1933. Large obovate acute-pyriform very sweet dessert and canning pear with green skin and a red blush. Ripens in August in Maine. Eat them fresh crisp, can them in quarters, and juice the rest. Precocious, annually bearing tree, medium-sized with typically conic habit. Considered the hardiest variety in the Minnesota collection. Free from fireblight. Z3. **ME Grown**.

180A Summercrisp, $25.00



Asian Pears *Pyrus pyrifolia* have been grown in China, where there are thousands of named cultivars, for over 2000 years. Very long-lived and bearing young, they often produce extremely heavily at maturity. Asian pears differ from European pears in texture, taste and appearance: they are crisp and very juicy, sweet and mild with a nutty background, and are roundish in shape. **Although partly self-fruitful, pollinators are recommended.** The varieties we offer will pollinate one another. Some European pears, notably Bartlett, will also act as pollinators as long as bloom times overlap. Because they set so heavily, to ensure large fruit size, thin the crop once or even twice during the first two months after bloom. Unlike European pears, they should be tree-ripened. When the seeds are black, the pears are ready to pick. They ripen in late summer and keep several weeks under refrigeration. Cultural requirements are similar to European pears. Although there have been occasional reports of Asian pears growing in Zone 4, they should be considered a Zone 5 plant. (3-6' trees)



Chojuro Late Summer. Chance seedling, Kawasaki, Kitsuju County, Kanagawa Prefecture, Japan, about 1895. Mildly sweet with a distinctive strong aroma and taste. White flesh is firm, crisp, somewhat coarse and not overly juicy. Medium-sized oblate to lopsided fruit with greenish-brown to brown medium-thick skin overlaid with thin smooth russet. Recommended to us by friends here in central Maine. Short picking period. Medium-sized vigorous dense very productive tree, with a spreading, slightly drooping form. Z4/5.

181A Chojuro, $25.00

Hosui Late Summer. [Ri-14 (Kikusui x Yakumo) x Yakumo] National Horticultural Research Station, Tsukuba, Japan, 1972. Standard commercial variety. Large round-oblate long-stemmed fruit with medium-thick skin covered with glowing yellow-orange-golden brown russet and numerous light russet dots. Firm crisp fine-textured juicy mild subacid yet sweet rich-flavored white to off-white flesh is considered by some to be the best-flavored of all Asian pears. Will store for a month. *Hosui* literally means 'much water.' Medium-sized very vigorous spreading productive tree has a floppy loose almost weeping growth habit. Susceptible to fireblight. Z5.

182A Hosui, $25.00

Kosui Late Summer. Kikusui x Wasekozo. Natl Hort Res Stn, Tsukuba, Japan, 1959. Crisp, juicy and very sweet. Medium-sized fruit is mostly covered with yellow-golden-brown russet. Early ripening, two weeks before Hosui and Chojuro and keeps for about 2 months. *Kosui* means 'good water.' Medium-sized vigorous spreading tree. Some resistance to scab. Z4/5.

183A Kosui, $25.00

Olympic Fall. Chojuro x *P. ussuriensis*. Chungsil, Korea, 1969. Also called **Dan Bae** and **Korean Giant**. Very large brown-green-orange russetted fruit weighing up to a pound, or even more, with sweet firm crisp coarse and juicy white flesh. Hardy but requires a long growing season, ripening in the fall (just after Niitaka). May not mature in colder areas. Keeps in the root cellar until spring. Upright spreading productive precocious tree. May have some tolerance to fireblight. Z5.

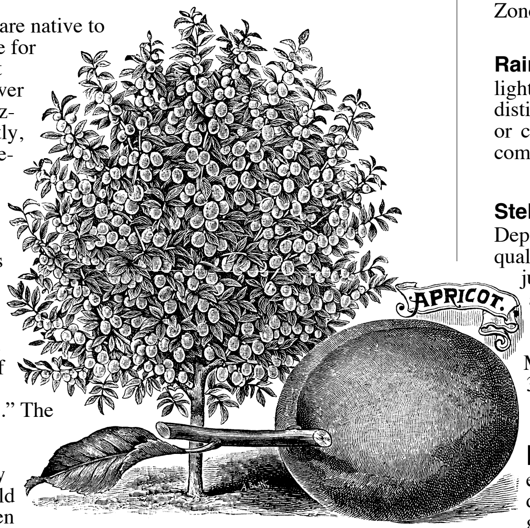
184A Olympic, $25.00

Shinsui Summer. Kikusi x Kimizukawase. Hort Research Stn, Yatabe, Japan, 1967. Medium-sized round-oblate yellowish-brown russetted fruit with crisp juicy fine-textured very sweet flesh. Excellent fresh eating. Not as firm as other Asians. One of the earliest to ripen each year. Pennsylvania grower and Asian pear aficionado Ike Kirschner considers this a great pear. Keeps about 6 weeks in refrigeration. *Shinsui* is translated as 'new water,' 'adoration,' 'inundation' and more. It is also the pseudonym of one of Japan's most famous twentieth-century artists, Ito Shinsui (1888-1972). Even if you don't know his name, you will almost certainly recognize his iconic colorful prints of young women. Z5/6.

185A Shinsui, $25.00

ME Grown = grown in Maine by a member of the Fedco growers coop.

Stone Fruits *Prunus* spp. are widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils. **Clingstone** means the fruit's flesh clings to the pit (or stone) and a **freestone** pit drops away from the flesh.



Apricots *P. armeniaca* are native to central Asia, cultivated there for about 4000 years. Downeast (coastal) Maine apricot grower and good friend Richard "Ozzie" Ossolinski wrote recently, "from what I saw during a recent road trip through the Stans, apricot 'orchards' hardly seem necessary.…Wild trees are as prevalent there as spruces are here in Maine. Even in the most rugged mountain terrain apricot trees seem to have established themselves wherever a few teaspoons of soil exist near a trickle of water: really pretty amazing." The trees are only marginally adaptable to northern New England. Because their early blossoms are sensitive to cold spring weather, they are often planted with northern exposures to delay blooming. Large crops are possible, but uncommon, in Maine. The zone rating should be viewed as an approximation because much depends on your site. We are on the lookout for reports of hardy trees in Maine and other northern locations. Please let us know if you've had success.

Plant 15–20' apart. **Self-pollinating**. (3-6' trees)

Harogem Midsummer. HW405 [Rouge du Roussillon x NJA2 (Morden 604 x open-pollinated)] Harrow Station, Ontario, 1979. Small-medium bright orange ovate fruit with a glossy red blush. Very firm moderately juicy freestone flesh has good flavor. Spreading productive tree with medium vigor and good disease resistance to brown rot and perennial canker. Somewhat resistant to bacterial spot. We're offering Harogem this year in our ongoing effort to provide apricots for northern growers. We'll be offering more of the Harrow series in the future. May be hardy in tropical areas of Zone 4. Z4/5.

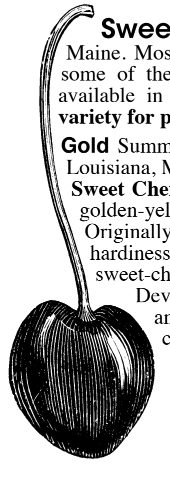
186A Harogem, $25.00

Pioneer Chinese Summer. Unknown parentage. Golden-yellow fruit with a reddish blush. Sweet firm and juicy flesh with the added benefit of an edible pit said to taste similar to almonds. Clingstone. Self-fertile although yields improve with cross-pollination. Late blooming could be an asset or a "pit-fall" depending on the latest bizarre spring weather pattern. Z4.

187A Pioneer Chinese, $25.00

Puget Gold Summer. Chance seedling, possibly of Perfection. Discovered in Anacortes, WA, by Jean Copeland. U of Wash. intro, 1987. Originally called **Cougar Gold**. Roundish-ovate clear yellow red-blushed fruit. Dense firm sweet deep orange-yellow freestone flesh is good to excellent fresh eating, drying or canning. Prolific. The blossoms are more frost-tolerant than those of many apricots; disease resistance is above average. Offered again with the encouragement of grower Ozzie Ossolinski: "Whereas not every PG that I have planted for clients has performed as well as those in my own orchard, I continue to recommend (and plant) it for those who are looking for a low (i.e. no) maintenance tree from which they might actually harvest some decent fruit." Ripens about September 1st at Ozzie's. Moderately vigorous spreading tree will grow to about 15x15'. Z5.

188A Puget Gold, $25.00



Sweet Cherries *P. avium* are generally not hardy in Maine. Most grow into very large trees. We are currently testing some of the hardiest varieties and hope to have more of them available in upcoming years. **Most varieties require a second variety for pollination.** (3-6' trees)

Gold Summer. Chance seedling. Stark Bros Nursery introduction, Louisiana, MO, about 1932. Also called **Stark Gold** or **Stark Gold Sweet Cherry**. Medium-sized crack-resistant fruit has translucent golden-yellow skin and firm flesh of exceptionally good quality. Originally selected for maraschino cherry processing, but its hardiness and good taste made it an excellent choice for northern sweet-cherry growers. Very productive large tree. Ripens late. Developed or selected by CJ Thomas in Rulo, Nebraska, and subsequently released by Stark Bros. Grown commercially in some areas. Z4/5.

189A Gold, $25.00

Kristin Summer. NY1599 (Emperor Francis x Gil Peck) Geneva, NY, 1982. Large very dark red or purplish-black fruit. Firm juicy red flesh is rich, sweet and delicious. Good resistance to fruit cracking. Tested in Montana, Norway (the country, not Maine) and New York and considered to be relatively hardy for a sweet cherry, possibly including protected areas of Zone 4. Ripens in mid-July. Z4/5.

190A Kristin, $25.00

Rainier Summer. Bing x Van. Washington Station, 1960. Very large fruit, light yellow skin with red blush. Clear flesh is very firm, fine-textured with a distinct delicious flavor. Colorless juice. Similar to Royal Ann. Good fresh or canned. Quite resistant to cracking. Vigorous productive tree. Early to come into bearing. Ripens in mid-July. Z5.

191A Rainier, $25.00

Stella Midsummer. 2C-27-19 (Lambert x John Innes Sdlg. 2420) Canadian Dept of Ag Research Stn, Summerland, BC, 1968. The first hardy good-quality self-fertile sweet cherry. Large heart-shaped black-skinned fruit has juicy medium-firm black flesh. May be a disappointment to sweet cherry aficionados from the Northwest but could be like a dream come true for orchardists living in the North. Although the fruit buds are relatively tender, we've received encouraging reports that the tree is doing well in Minnesota. Upright spreading vigorous productive tree will grow to 25–30'. Self-pollinating, also pollinates other sweet cherries. Z4. **ME Grown**.

192A Stella, $25.00

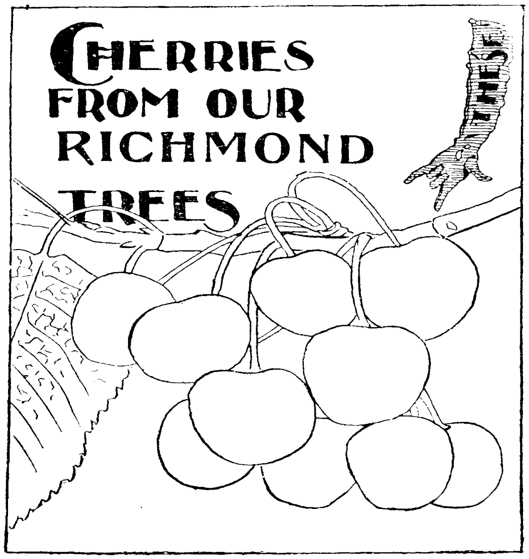
Pie Cherries *P. cerasus* are called "sour," but they're delicious enough to eat right off the tree. They fruit in early to midsummer and don't mind heavy soil. They are especially good in pies. They are generally divided into two groups: **Morello** types have dark red spherical fruit, dark juice and relatively small compact trees. **Montmorency** (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees.

Pie cherries are significantly hardier than sweet cherries but can be frustrating to grow. Although the trees are fully hardy in Zone 3, flower buds may be damaged in colder winters. Some growers in Maine have reported large harvests only to have their trees die unexpectedly a year or two later. We regularly hear reports of excellent crops so we know it can be done. We are currently testing several promising varieties including some local heirloom discoveries. Our hope is to find pie cherries that will be consistently healthy and productive. We are very interested in your successes and failures. If you have had experiences you think might be useful to others, please be in touch. **Pie cherries are self-pollinating, and do not require another variety for pollination**. Plant 15-20' apart. (3-6' trees)

For *P.* x *kerrasis*, Carmine Jewel and Crimson Passion dwarf sour cherries, see p. 49.

Early Richmond Summer. Probably seedling of Cerise Commune, England, before 1600. Could be the same as **Cerise de Volger** or **Cerisier Hatif**. Also called **Flanders**, **Kentish** and **Flemish** in England and **Virginia May** and **Early May** in the U.S. Dark red, Armarelle (Montmorency) type fruit with pale yellow flesh and pinkish juice. Good culinary and dessert fruit when perfectly ripe. Recommended in particular for its very early ripening season and for its excellent dried fruit. Healthy tree is very soil- and climate-adaptable—from Canada to Carolina, Connecticut to California. May have originated in England or been brought there by the Dutch, or a lot earlier by the Romans. Acquired the name Early Richmond after arriving in Richmond, VA, sometime before 1820. The second most popular commercial pie cherry—after Montmorency—in New York state in the early 1900s. Z4/5.

193A Early Richmond, $25.00


CHERRIES FROM OUR RICHMOND TREES
THESE

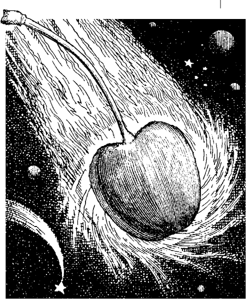
English Morello Summer. Netherlands or Germany, before 1860. Sometimes called **Grosse Cerise a Ratafia**, **Grosse Lang Lothkirsche**, **Griotte du Nord**, **Morris** and **Colorado Morello**. Very dark red-black skin. Dark red flesh and juice. Excellent culinary cherry, recommended for pies and all other cookery. Ripens late, after Montmorency. Distinctive small roundish tree with drooping branches. Brown rot resistant. One of the most famous of all pie cherries. Despite the name we know it by, it is thought to have originated on the Continent, eventually finding its way to England and then to North America. Z4/5.

194A English Morello, $25.00

Evans Mid-Late Summer. Unknown parentage. Edmonton, Alberta, Canada. Also called **Bali**. Rescued from obscurity in 1976 by Dr. Ieuan Evans for whom it was named. Thought to have been brought to Alberta by early settlers from Minnesota. Known in the Edmonton area at least back to 1923 but only recently gaining widespread attention. Hardiness reports are inconsistent, but our own Aroostook County trials are proving it to be hardier than Meteor, Montmorency or North Star. Cropping and fruit-quality reports are also inconsistent. Some extremely positive and others not so. There is also debate about the differences between grafted trees and "own root" specimens usually started by tissue culture. We are now doing side-by-side trials in four Maine locations to see if we can sort that all out. Large crops of Morello-type fruit are possible and the fruit is considered to be excellent for eating, jams, jellies, pies, dark red juice and wine. Naturally dwarf tree, tolerant of a wide range of soils, although prefers light fertile soils. This year we are offering grafted trees. Z3.

195A Evans, $25.00

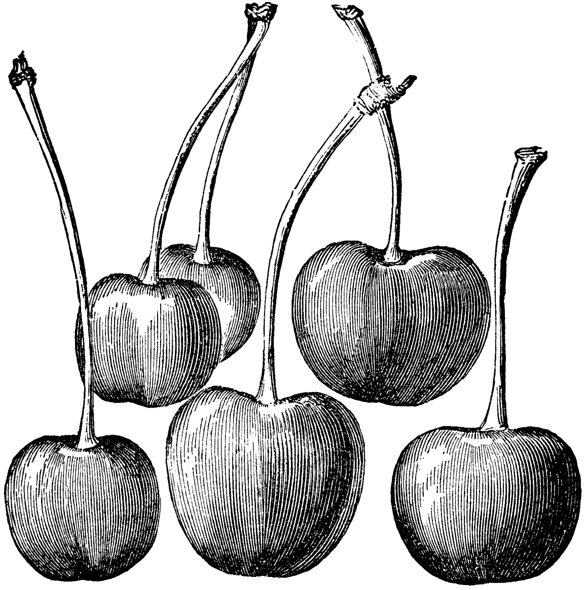
Meteor Summer. MN 66 (Montmorency x Vladimir) U Minn, 1952. Bright scarlet-red roundish-oval fruit. Clear bright yellow flesh and clear juice. Mildly acid flavor. Has proved to be a consistent producer in some locations but very susceptible to brown rot in others. In coldest districts, cropping has been inconsistent and hardiness questionable. In our Aroostook County test orchard, trees died to the ground after temperatures of –38°: not as hardy as Evans or Garfield Plantation. However, we still recommend it from central Maine south, Zones 4, 5 and 6, where some growers are having great success with Meteor. Very good eating right off the tree. Also good for pies, canning and freezing. Easy to pit. Excellent dried. Ripens mid-July in Central Maine. Reaches 12–16'. Z3. **ME Grown**.

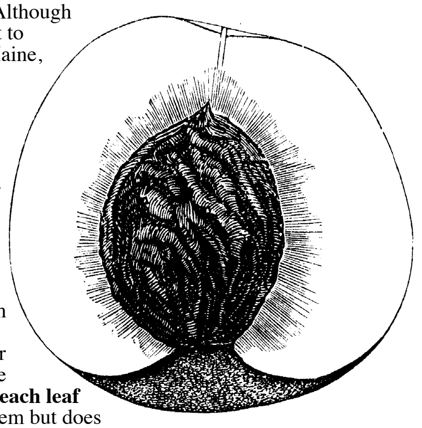


196A Meteor, $25.00

Montmorency Summer. Seedling of Cerise Hâtive or Cerise Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. about 1830. The most famous of all pie cherries. Not widely grown in Europe or Russia but long the standard of excellence in the U.S. Firm-fleshed bright red fruit makes a clear light pink juice. Surprisingly hardy, though not as hardy as Garfield Plantation or Evans. Our Aroostook County test orchard trees fare better than Meteor, but just barely. Should do really well from central Maine south. Appears to be resistant to brown rot. Vigorous productive medium-sized upright-spreading tree tolerates a variety of soils. Parent of Meteor. Z3. **ME Grown**.

197A Montmorency, $25.00





Peaches *P. persica* Although many people will tell you not to bother growing peaches in Maine, if you've been repeatedly saddened by the poor quality available in the supermarket, what's there to lose? Many trees in northern New England produce large crops. They bear young and so heavily that they may break branches if unthinned or unsupported. Trees may die unexpectedly at any age; there are no truly hardy peach cultivars. But peaches are usually unaffected by pests or diseases in northern areas, the occasional exception being **peach leaf curl**. PLC is not a fatal problem but does need to be controlled if you get hit with it. Look for crinkled or puckered foliage in spring. Remove affected leaves and compost them. Spray the tree early the following spring while it is still dormant (before any buds open!) with lime sulfur or copper. Onion, garlic or horsetail spray while leafed-out may also be effective.

Some growers are miffed that they get no fruit after dutifully **pruning** their trees. Peaches fruit on last year's growth! If you prune it off, you'll get no fruit. Prune your peach trees in April or even May up north, once they begin to leaf out. Trim off any dead branches and leave most or all of the live wood. If your tree becomes leggy, make a few bold cuts each year back to a vigorous branch closer to the trunk. That will promote even fruiting throughout your tree.

Peach trees do not need a second variety for pollination. Plant 15-20' apart. (3-6' trees)

Belle of Georgia Late. Seedling of Chinese Cling. Marshallville, GA, about 1870. Also called **Georgia Belle**. Old-time white-fleshed favorite, surprisingly hardy in spite of its origin. Large beautiful roundish-oval cream-colored fruit with a bright red blush and thin tender skin. Flesh is white, tinged with red, firm, melting, juicy, very high quality. Freestone. Very good fresh eating, cooking and canning. Large vigorous productive tree. Resistant to bacterial spot, slight resistance to brown spot. Hardier than we originally thought; we now know of trees fruiting well almost as far north as Bangor. Z4/5.

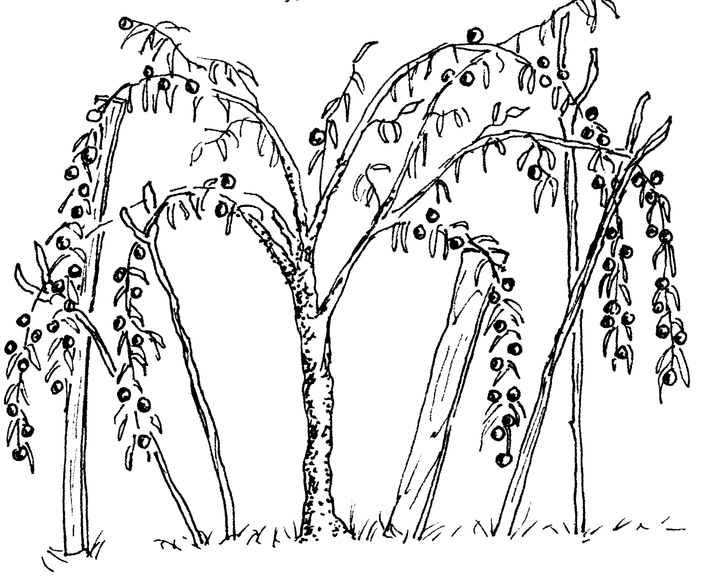
198A Belle of Georgia, $25.00

Contender Mid-Late. NCT 544 (Winblo x complex parentage of North Carolina selections) DJ Werner, JR Ballington and DF Ritchie introduction, Ag Experiment Stn, Raleigh, NC, 1988. A fairly new high-quality hardy variety worth trialing in the north. Large round bright red and yellow freestone fruit with a slightly raised suture. Firm melting aromatic yellow flesh. Growth habit similar to Red Haven, ripens 3 weeks later. Resistant to leaf spot. Because it blooms quite late, it might escape late spring frosts. Z4/5.

199A Contender, $25.00

Garnet Beauty Early. Sport of Red Haven. Ruthven, Ontario, 1958. A sport (mutation) of Red Haven discovered by Garnet Bruner in 1951 and introduced seven years later. Medium to large yellow-fleshed semi-clingstone fruit with excellent flavor. The earliest peach we offer; ripens 12 days earlier than Red Haven with similar hardiness. Vigorous and productive tree. Good bud hardiness. Recommended for colder disticts. Z4/5. **ME Grown**.

200A Garnet Beauty, $25.00



Lars Anderson Early. Uncertain origin. Pastor Chuck Orchards, Cushing, ME. Large juicy sweet yellow-fleshed freestone fruit. Lars Anderson's son-in-law Waite Maclin (AKA Pastor Chuck) brought this tree to our attention several years ago. Waite described the fruit to me as "tasting just like a peach should taste. When I give them away to friends and neighbors they think the peaches have been purchased in the South." Lars Anderson planted the tree on the Maine coast about 1965. He died in 1981 but the family continued to maintain the peach, even after a huge 1982 nor'easter blew the tree to the ground and split it in half. After the old tree finally succumbed in 2009 Waite sent us a monogrammed "slice" of trunk which we display on our mantle. Currently being tested in Zone 4, but for now, it should be considered a Zone 5 plant. **ME Grown**.

201A Lars Anderson, $25.00

Madison Mid-Late. Ideal x Red Haven. VA Station, 1963. A fine peach for the North, with hardiness similar to Red Haven (though it ripens 3 weeks later). Medium-large fruit with bright orange skin and bright red blush. Orange-yellow firm fine-textured juicy flesh with excellent very sweet rich peach flavor. Very good quality. Skin peels easily. Freestone, excellent canner. Very productive tree. Exceptional tolerance to blossom-season frost. Z5.

202A Madison, $25.00

Polly Peach Mid. SA Beach and TJ Maney intro, University of IA, 1932. Medium-sized white-fleshed freestone fruit. Whitish skin with a reddish blush. Reliable cropper. Blooms later in the season. Considered the hardiest white-fleshed peach. Probably a cross of Bailey and *Prunus davidiana*. Perhaps the name was inspired by Bertolt Brecht's infamous Polly Peachum, wife of the even more infamous Macheath—Mack the Knife. Zone 5 or maybe Zone 4.

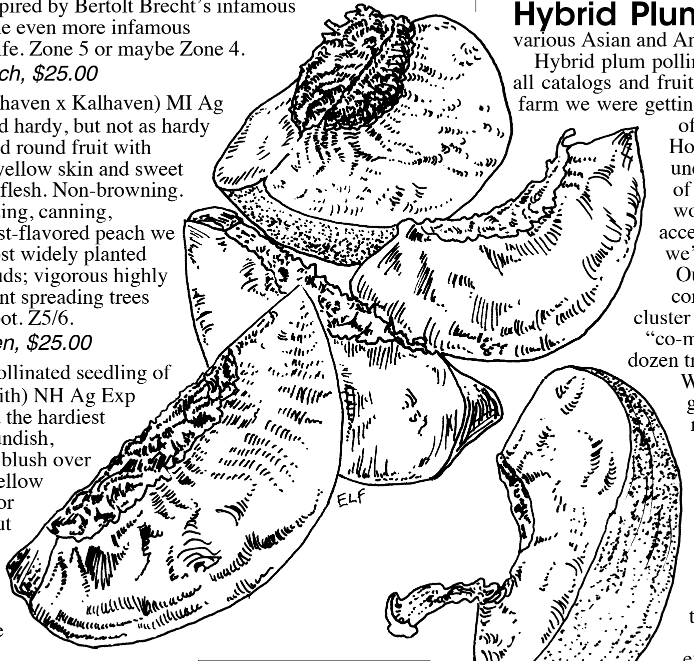
203A Polly Peach, $25.00

Red Haven Early. (Halehaven x Kalhaven) MI Ag Exp Stn, 1940. Considered hardy, but not as hardy as Reliance. Medium-sized round fruit with beautiful red and golden-yellow skin and sweet firm fine-textured yellow flesh. Non-browning. Excellent for eating, freezing, canning, shipping. Probably the best-flavored peach we offer; also the world's most widely planted freestone peach. Hardy buds; vigorous highly productive disease-resistant spreading trees are tolerant to bacterial spot. Z5/6.

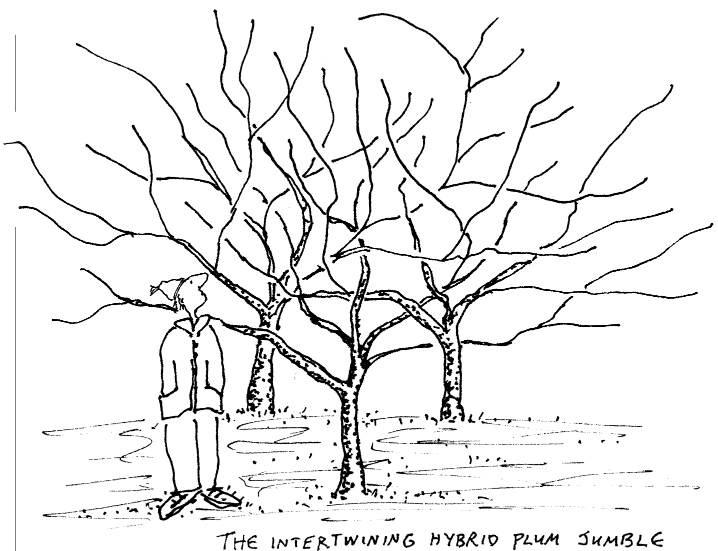
204A Red Haven, $25.00

Reliance Early. (open-pollinated seedling of Minn PHO 4559 x Meredith) NH Ag Exp Station, 1964. Considered the hardiest peach. Medium-sized, roundish, freestone. Rather dull red blush over greenish yellow. Bright yellow flesh, soft and juicy. Flavor usually considered fair, but those who grow it in Maine love it. Often produces large crops. Bears at an early age. May have some resistance to peach leaf curl. Z4/5.

205A Reliance, $25.00



ME Grown = grown in Maine by a member of the Fedco growers coop.


THE INTERTWINING HYBRID PLUM JUMBLE MEANS MORE FRUIT IN SEPTEMBER

Hybrid Plums

Prunus spp. are extremely hardy crosses between various Asian and American species.

Hybrid plum pollination has been glossed over—or avoided—in virtually all catalogs and fruit-growing literature for generations. Some years on our farm we were getting decent crops, but most years, not. We tried a number of different strategies as Fedco catalog readers will know. However Rick Sawazky at the University of Saskatchewan unearthed a 1934 article that quoted Prof. W. H. Alderman of the University of Minnesota: "…very few hybrid plums would accept pollen freely from other hybrids, but they all accept pollen from native plums." Perhaps the breakthrough we'd all been searching for!

Our own suspicions, as well as our experiments, appear to corroborate this view. Here's what we recommend: plant a cluster of trees close enough together (3–6') for the branches to "co-mingle." Our "clusters" number from three up to nearly a dozen trees. Include native plum pollinators among the hybrids. With some decent sunshine during bloom, you should get good fruit set. Usually Toka, South Dakota and Kaga are recommended as the best pollinators among the hybrids. We also highly recommend planting pure *Prunus americana* (#**208** or #**164**) or *P. nigra* seedlings or grafted trees in the orchard. We include the American plum seedling in this hybrid section because it may be the best pollinator for the hybrids.

There has recently been speculation that pollination improves with heat. Growers in warmer districts often report better success with pollination and the thought is that colder temperatures may retard pollen production or even somehow render it ineffective. This could in part explain the fantastic plum crop up here in 2008. Not only was it sunny all during bloom, it was also warm.

Of course, plums are still susceptible to the small pesky insect, plum curculio. We have read that laying sheets of cardboard under plum (and apple) trees will smother the PC pupae developing in the soil. PC is not difficult to control organically with Surround (see the Organic Growers section of the Seed catalog). With decent pollinators nearby, Surround may not even be necessary. In 2008 we decided to skip Surround on one grouping of 8 trees and still got a good crop.

Bloom times similar for all varieties. Not susceptible to black knot. (3-6' trees)

Hybrid Plum Collection A package of seven trees to begin your plum orchard. Our choice of 7 different trees, including at least two pollinators. **Plant trees in one cluster**, with about 3–6' between trees. Let the branches grow right into one another (see above) while still keeping them pruned to allow in plenty of air and light. Trees are individually labeled.

206A Hybrid Plum Collection, bundle of 7 for $150.00

Alderman Late summer. MN 416 [*P. salicina* Burbank x Older (*P. sal.* x *P. americana*)] U Minn, 1985. Golden-yellow sweet juicy clingstone flesh of excellent quality. Brilliant red heart-shaped fruit is notably larger than most other hybrids. Original cross made in 1945 by University of Minnesota professor WH Alderman with Luther Burbank's famous plum and an extremely hardy hybrid plum, Older. Named in his honor on his 100th birthday in 1985. Z3/4.

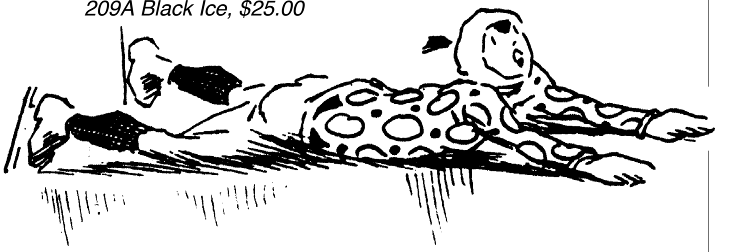
207A Alderman, $25.00

American Plum Seedling *P. americana* 15-20' Seedling plum that grows in thickets and produces very decent red, yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Spectacular white bloom in spring. Red fall color. Plant singly as a graceful specimen or plant 3–6' apart and let the branches intertwine for maximum pollination. Tends to sucker freely. May be the best pollinator for hybrid plums. (See previous page.) Plant one of these for every 3 or 4 plum trees, within 10' of each of them. These trees are significantly larger than **#164**, plum seedling rootstock. Extremely hardy. Z3. **ME Grown**.

208A American Plum Seedling, $25.00

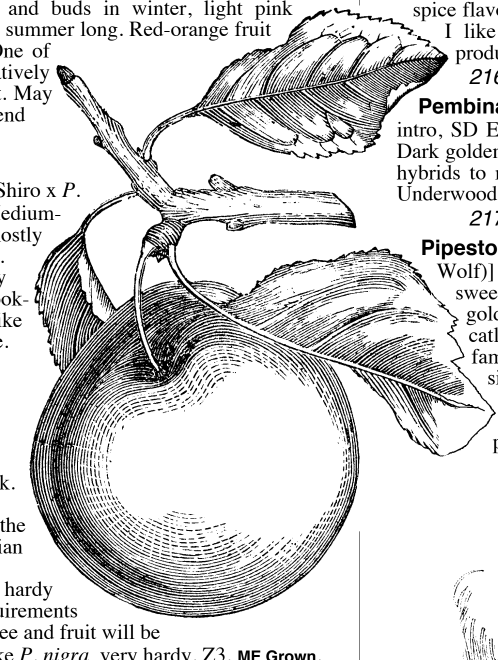
Black Ice Midsummer. *P.* Lydecker [*P. besseyi* x (*P. sal.* Oka x *P. sal.* Z's Blue Giant)] U of Wisc, River Falls, 2006. Large 2" round early-ripening high-quality hardy blue-black dessert plum. Very sweet juicy reddish-purple semi-freestone flesh. Precocious and productive tree with a naturally compact growth habit. Bred by Brian Smith who I visited a few years ago on a fruit exploration trip in the Upper Midwest. He graciously showed us all through his amazing nursery in River Falls. He was growing many of his plums in huge tubs, manipulating bloom time using greenhouses and coolers. This enabled him to cross species or varieties that would never normally flower together. Though we're not fans of plant patenting, we have been eager to offer his first major introduction. PVP 16621. The literature recommends Toka or La Crescent as a pollinator. Now on trial at our farm. Z3.

209A Black Ice, $25.00



Cocheco Midsummer. (Purple Heart x unnamed red-leaf plum) Elwin Meader intro. Rochester, NH, c. 1968. In a lengthy *Maine Sunday Telegram* article on September 8, 1968, Meader said, "It's an example of being able to have your cake and eat it. The new tree is beautiful enough to be an ornamental. It also has delicious fruit and windbreak value." As we sat together chatting in the gazebo a couple of years ago, a friend suddenly turned to me and said, "What is that tree?" Even at 100 feet away, it is a strikingly beautiful sight. Red twigs and buds in winter, light pink flowers in spring, glossy red foliage all summer long. Red-orange fruit filled with soft sweet pinkish flesh. One of the first to ripen in midsummer. Relatively large tree with an upright growth habit. May be self-pollinating, though we recommend treating it like other hybrid plums. Z4.

210A Cocheco, $25.00



Ember Late Summer. MN 83 (*P. sal.* Shiro x *P. a.* South Dakota #33) U Minn, 1936. Medium-sized roundish-conic slightly pointed mostly red-blushed fruit with a medium bloom. Rich yellow very firm but tender, meaty juicy sweet flesh. Recommended for cooking and fresh eating. Tastes and looks like an apricot. Low spreading vigorous tree. Z3. **ME Grown**.

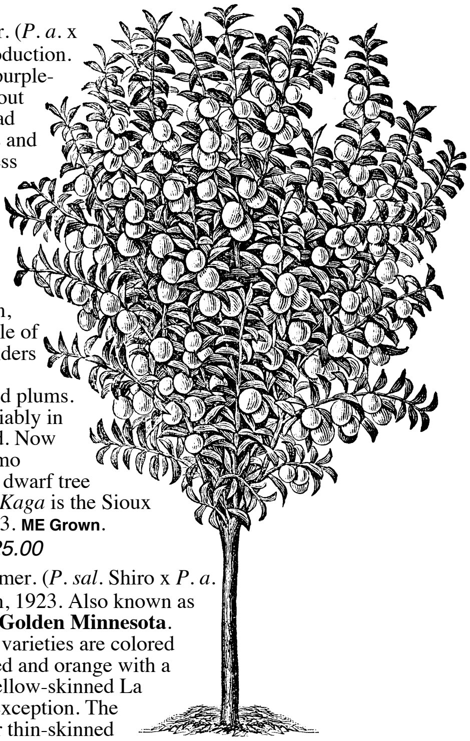
211A Ember, $25.00

Grenville (*P. sal.* Burbank x *P. nigra*) Canada Dept of Agriculture Research Station, Ottawa, 1941. Large dark rosy red clingstone fruit, resembling Burbank. Yellow flesh with excellent flavor. Vigorous early-blooming tree. Most of the hybrid plums were developed using Asian varieties crossed with *P. americana*. Grenville was bred using the extremely hardy Canada plum, *P. nigra*. Pollination requirements are the same as other hybrids, but the tree and fruit will be somewhat different from the others. Like *P. nigra*, very hardy. Z3. **ME Grown**.

212A Grenville, $25.00

Hanska Summer. (*P. a.* x *P. simonii*) NE Hansen intro, Brookings, SD, 1908. Medium-sized bright red fruit with a heavy bluish bloom. Firm fragrant yellow semi-freestone flesh. When cooked, the fruit has a strong apricot-like flavor reminiscent of its Chinese "apricot plum" parentage. The fruit resembles its sister seedling, Kaga. *Hanska* is the Sioux word for 'tall' referring to the tree's fast growth in the nursery. We agree! The specimen I have on trial has grown quite rapidly in the orchard. Though Hansen gave it a lengthy write-up in his 1927 *Plant Introductions Bulletin*, Hanska all but disappeared and remains one of the most rare of his introductions. We're happy to offer it in the catalog. Z3/4. **ME Grown**.

213A Hanska, $25.00



Kaga Mid-Late Summer. (*P. a.* x *P. sim.*) NE Hansen introduction. SD Stn, 1909. Small 1" purple-black fruit. Good eating out of hand when they're dead ripe. Exceptional in jams and jellies due to the meatiness of the black flesh. This is not one of those plums that dissolves and dribbles down your cheek. The most profuse bloomer in Mark Fulford's plum collection, coming right in the middle of plum season. Mark considers it to be an excellent pollinator for other hybrid plums. It's also been bearing reliably in his Monroe, ME, orchard. Now also on trial in our Palermo orchard. Dense naturally dwarf tree grows only to about 10'. *Kaga* is the Sioux word for 'pitch a tent.' Z3. **ME Grown**.

214A Kaga, $25.00

La Crescent Late Summer. (*P. sal.* Shiro x *P. a.* Howard Yellow) U Minn, 1923. Also known as **Golden La Crescent** or **Golden Minnesota**. Most of the hybrid plum varieties are colored with some variation of red and orange with a little purple tossed in. Yellow-skinned La Crescent is one notable exception. The beautiful roundish tender thin-skinned yellow fruit is sometimes blushed with a little pink. Tender yellow juicy flesh of excellent quality is sweet, aromatic and suggestive of apricots. Freestone. Upright spreading vigorous tree. Z3/4. **ME Grown**.

215A La Crescent, $25.00

Monitor Late Summer. MN 70 (*P. sal.* Burbank x *P. a.*) U Minn, 1920. Medium-sized roundish ovate pointed fruit. Thick deep purple skin has a thin bloom. Meaty tart strong-flavored orange flesh. Frank Foltz of the old Northwind Nursery in Minnesota described it to me as having a "strong, spice flavor on the tart side…too tart, perhaps, for most peoples' taste, but I like the sprightly flavor." Clingstone. Vigorous reliably fruiting productive upright spreading tree. Probably Z3/4. **ME Grown.**

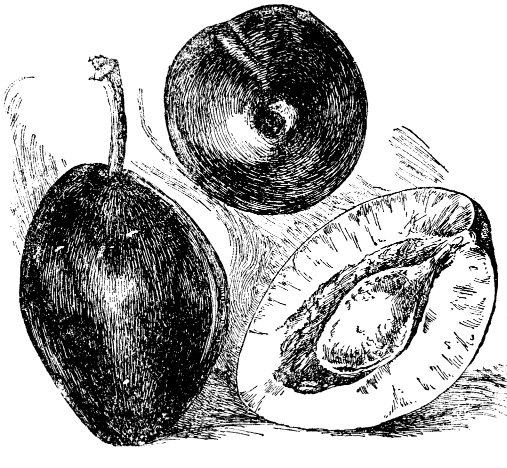
216A Monitor, $25.00

Pembina Midsummer. (*P. sal.* Red June x *P. n.* Assiniboine) NE Hansen intro, SD Exp Stn, 1923. Large pointy bright red fruit with bluish bloom. Dark golden-orange flesh is firm and apricot flavored. One of the first of the hybrids to ripen every summer, about the same time or a bit earlier than Underwood and well before the bulk of the plum crop. Z3/4. **ME Grown**.

217A Pembina, $25.00

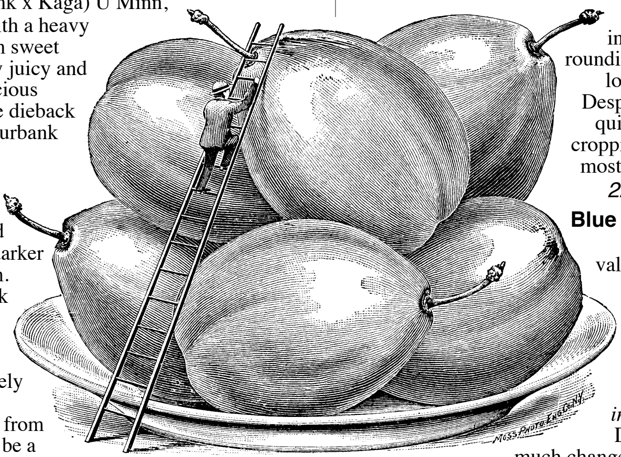
Pipestone Late Summer. MN 218 [*P. sal.* Burbank x (*P. sal.* x *P. a.* Wolf)] U Minn, 1942. Juicy yellow clingstone plum with excellent sweet flavor. Tough thin skin peels easily. Large deep red fruit with a golden blush presumably named in honor of the beautiful red catlinite rock of Pipestone, Minnesota. Home of one of the most famous Native American quarries, long considered to be a sacred site by the tribes who mined the quartzite rock for their pipes. Designated a national monument in 1937, Pipestone even makes an appearance in Henry Wadsworth Longfellow's famous 1855 poem, "The Song Hiawatha." Vigorous reliable tree. Z3.

218A Pipestone, $25.00



South Dakota Late Summer. SD 27. *P. a.* Unknown parentage. U Minn/SD Ag Exp Stn, 1949. Small to medium-sized fruit has tough yellow skin with bright red blush. Medium-firm yellow flesh is meaty, juicy, sweet. Fresh eating quality is excellent. Fully freestone. Because of its very long flowering period and American pedigree, we recommend South Dakota as a pollinator for all hybrid plums. In our orchard it's still blooming when the other plums have dropped their flowers. Also ripens after the other hybrids are done. Developed by NE Hansen before 1907. One of Hansen's students took it to the breeding program at the University of Minnesota where it was later introduced. Vigorous tree. Z3.**ME Grown**.

219A South Dakota, $25.00



Superior Late Summer. MN 194 (Burbank x Kaga) U Minn, 1933. Very large conical dark red plum with a heavy bloom and "superior" dessert quality. Firm sweet yellow flesh is smooth textured, extremely juicy and clingstone. Very good fresh eating. Precocious production, vigorous tree. Will show some dieback in coldest locations likely because of its Burbank parentage. Z3/4. **ME Grown**.

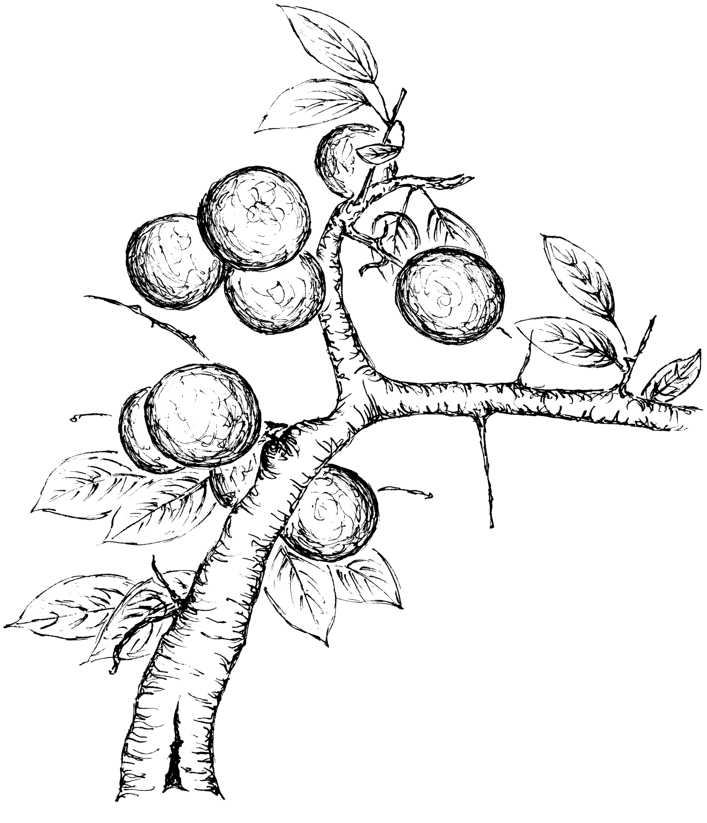
220A Superior, $25.00

Toka Late Summer. (*P. a.* x *P. sim.*) Intro by NE Hansen, SD Exp Stn, 1911. Rosy red fruit, up to 1$^{1}/_{2}$" in diameter, mottled with darker purplish-red and covered with a faint bloom. Grower Don Johnson's comment was, "Talk about flavor: candy plum." Ed Fackler called Toka the best-flavored plum he grew in his Indiana orchard. Sweet, distinctive, meaty and flavorful. Not real juicy. Extremely vigorous tree blooms heavily every year. Diligent pruning may be required to keep it from becoming a bit of a monster. Considered to be a good pollinator for other hybrid plums. Somewhat freestone. Z3. **ME Grown**.

221A Toka, $25.00

Waneta Midsummer. (*P. sal.* Apple x *P. a.* Terry) NE Hansen intro, SD Exp Stn, 1913. Released one year after Kahinta, and with the same parentage, when hybrid plums were an important and commercially viable crop. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Large 1$^{1}/_{2}$–2" reddish-maroon fruit, slightly less pointed than Kahinta. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings." Early blooming healthy open spreading tree bears reliably in our orchard. Z3. **ME Grown**.

222A Waneta, $25.00



European plums *P. domestica* Delicious fresh and often grown commercially for prunes.

A true prune is a plum that can be dried without the pit fermenting. Although we've not tried it, we've heard recommendations that you blanch the plums for 45 seconds before drying them. They should be dry in a day or two. European plums produce smaller fruit and are generally not as hardy as the hybrid plums, though they can handle heavier soils and are less prone to brown rot. Unlike hybrids, they are prone to the fungal disease black knot, which looks like black chewing gum and appears on branches. While not necessarily fatal, it must be kept in check by removing and destroying infected branches. Trees grow upright and are usually trained to a central leader. Although **European plums are self-pollinating**, planting two different varieties will improve pollination. (3-6' trees)

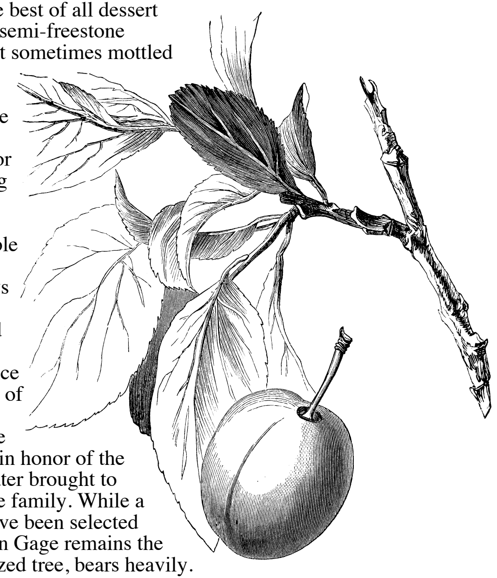
Big Blue Summer. Possibly a Millers Nursery introduction, Canandaigua, NY. Large sweet blue roundish plum recommended for trial in most northern locations. Suitable for fresh eating and for drying. Despite its rather un-glamorous name, growers seem quite happy with Big Blue's good fruit and reliable cropping. The very productive tree should be hardy in most Maine locations. Zone 4 or maybe 3. **ME Grown**.

223A Big Blue, $25.00

Blue Damson Small blue-black spicy tart astringent plum recommended for the best preserves. Also valued for wine and distilled plum beverages. Cold hardy, heavily bearing and self-fruitful. Small compact trees adaptable to a variety of soils and climates. Most European plums are of the species *P. domestica*. Damsons (along with the Bullaces, Mirabelles and St Julians) are *P. insititia*, sometimes called *P. domestica* var. *insititia*. 'Damson' comes from the Syrian city of Damascus. These are ancient fruits, probably not much changed from when the Greeks introduced them to the Romans, who introduced them to Europeans, who brought them here. Like the domesticas, susceptible to black knot. Z4.

224A Blue Damson, $25.00

Green Gage Mid-Late Summer. Unknown origin, may be *P. domestica* x *P. institia*. Probably Armenia, long before 1500. Also called **Reine Claude**. Often considered the best of all dessert plums. Small round semi-freestone yellowish-green fruit sometimes mottled with red has tender, juicy, melting flesh with rich flavor. Like candy on a tree. A favorite in Europe for over 500 years. Long referred to as Armenian plum, suggesting its possible point of origin, though no one knows for sure. Found its way into Greece and Italy and then introduced into France during the early part of the 16th century where it acquired the name Reine Claude in honor of the wife of Francis I. Later brought to England by the Gage family. While a number of Gages have been selected over the years, Green Gage remains the original. Medium-sized tree, bears heavily. Not long-lived. Fruit susceptible to cracking. Z4.



225A Green Gage, $25.00

Mount Royal Late Summer. Chance seedling, Outremont, Quebec, before 1903. Popular plum in Quebec and the northern U.S. for many years. Also called **Mont-Royal**. Discovered by Mr. Corse in or near Montreal sometime during the period between 1830-1850. Bears abundant annual crops of medium-sized roundish dark-purple fruit. Often considered the sweetest of the European plums. The flesh is greenish-yellow, juicy and firm. Use fresh, dried, frozen, canned and in preserves. Medium-sized tree is open with good crotch angles and requires only moderate pruning. Z3. **ME Grown**.

226A Mount Royal, $25.00

Stanley Late Summer. (*P. d.* Agen x *P. d.* Grand Duke) NY Station, 1926. Most popular European prune plum in America with the possible exception of 'Italian'. Excellent for cooking, eating, canning and drying. Medium-to-large oval fruits with dark blue skin. Green-yellow firm but tender juicy fine-grained sweet flesh. Reliably bearing fast-growing adaptable medium-to-large funnel-shaped tree produces healthy vigorous annual crops. Z4.

227A Stanley, $25.00

Small Fruits & Berries

Lowbush Blueberry *Vaccinium angustifolium* 6x24" Blueberry growers in Maine usually don't bother with the "lowbush" distinction; to them, this is the only true blueberry. Though both plants and berries are diminutive, the taste is supreme. Lustrous blue-green medicinal foliage is good in teas. There's even a new blueberry leaf tea industry brewing in Maine. Amazing combination of bronze, orange and scarlet in the fall. Grown in Maine long before Europeans came Downeast, blueberries are still a local favorite and cultivated on thousands of acres. Commercial blueberry land is burned in the spring to clear out the weeds; a crop follows a year later. To speed harvesting, berries are usually raked rather than hand-picked though you don't have to burn and rake to have a small-scale planting.

Invented in Maine well over 100 years ago by Abijah Tabbutt, the blueberry rake looks something like a cross between a comb and a dustpan. The body of the rake is even called the pan. You comb the rake a bit into the bushes (but not deeply so!), tilt it back and the berries pop off and roll into the pan. As the saying goes, "the lighter the hand, the more berries in the pan." You will also inevitably accumulate small twigs and leaves and various other odds and ends. Best raking is done on a breezy day. Lift the rake above your pail (we use a 5 gallon bucket) and pour. Ideally the berries will stream into the bucket while the twigs and leaves flutter off in the wind.

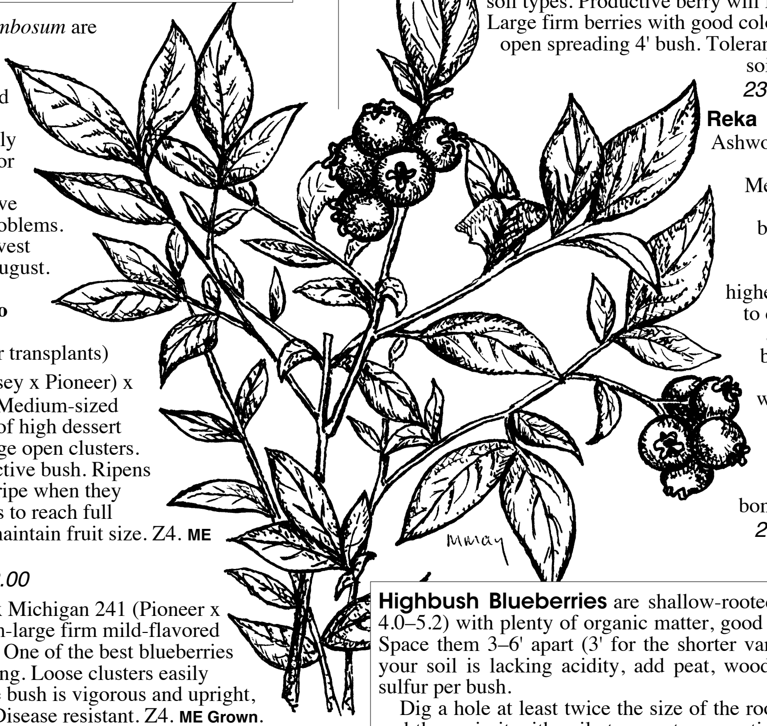
Native to northeastern U.S. Z2. **ME Grown**. (6x6" sod)

228A Lowbush Blueberry, $13.00

Lowbush Blueberries

Woodsy dry poor acid soil (pH 4.0-5.2) is a prerequisite for lowbush blueberries. If you've got white pine, you're probably all set. Plant 12" apart each way and cultivate as a ground cover. Generally self-pollinating; other blueberries nearby will help ensure pollination. Full sun is best for maximum fruit production. Keep your patch weed free.

Highbush Blueberries *V. corymbosum* are native to North America. While usually associated with New Jersey and Michigan, many of Maine's lakes are lined with massive stands of highbush blueberries. Grazing the shore requires only time and a suitable vessel; I prefer kayak or canoe. The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable, with few disease or insect problems. By planting several varieties, you can harvest berries from early July through most of August. Bears first crop 3–7 years after planting. Productive for at least 20 or 30 years. **Two varieties are required, three or more recommended, for pollination**. (1-2' 2-yr transplants)



Bluecrop Early-Midseason. GM 37 (Jersey x Pioneer) x CU-5 (Stanley x June) USDA, NJ, 1952. Medium-sized firm subacid fruit; very light blue berries of high dessert quality, resistant to cracking. Medium-large open clusters. Vigorous, upright 4-6' consistently productive bush. Ripens over a long season. May not be perfectly ripe when they first turn blue. Give them a few more days to reach full flavor before picking. Pruning will help maintain fruit size. Z4. **ME Grown**.

229A Bluecrop Blueberry, $12.00

Bluejay Early-Mid. HBS400 [Berkeley x Michigan 241 (Pioneer x Taylor)] Michigan State U, 1978. Medium-large firm mild-flavored light blue berries with high sugar content. One of the best blueberries for eating, freezing, canning, and preserving. Loose clusters easily harvested by hand or machine. Productive bush is vigorous and upright, slightly spreading. Grows fast, 5–7' tall. Disease resistant. Z4. **ME Grown**.

230A Bluejay Blueberry, $12.00

Blueray Mid. (GM 37 x CU-5) USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Considered the best-tasting by nearly everyone who grows highbush blueberries. Very vigorous 4-6' bush with upright spreading habit. Consistently productive. Ripens a few days before Bluecrop. Z4. **ME Grown**.

231A Blueray Blueberry, $12.00

Chippewa Early-Mid. MN 393 [B18A (G65 x Ashworth) x US3 (Dixi x Michigan Lowbush No. 1)] U Minn, 1996. Lowbush-highbush type, only about 3–4' at maturity. Very light blue medium-large firm fruit in compact clusters. Mild and sweet flavor similar to the best wild strains. Less acidic than Northblue. Foliage is a very lustrous green. Z3.

232A Chippewa Blueberry, $12.00

Earliblue Extra Early. (Stanley x Weymouth) USDA, NJ, 1962. The first blueberry of the season to ripen. Moderately large medium-blue firm aromatic fruit with good dessert quality. Vigorous upright hardy moderately productive bush, with medium-sized loose clusters of berries that do not drop easily. Resists cracking. Some resistance to powdery mildew. Z4. **ME Grown**.

233A Earliblue Blueberry, $12.00

Elliott Very Late. Burlington x [Dixi x (Jersey x Pioneer)] USDA, 1974. A real season-extender. Considered the latest of all varieties, Elliott ripens two weeks after Jersey. Loose clusters of medium-sized very firm mild-flavored light-blue berries. Slightly spreading somewhat bushy upright plant is consistently highly productive in part because it blooms late and escapes spring frosts. Be forewarned: the berries may turn blue before they reach their peak flavor. Leave them on the bush until they are fully ripe. Check a few before you pick them all! Z4. **ME Grown**.

234A Elliot Blueberry, $12.00

Jersey Mid-Late. (Rubel x Grover) USDA, 1928. The beloved old standard of blueberry introductions to which new varieties are compared. Medium-to-large dark blue berries in large loose clusters. Vigorous erect hardy bush, 5-7' tall. Productive, widely grown, adapted to a wide range of soils, highly praised, easy to grow and suited to the New England climate. Z4. **ME Grown**.

235A Jersey Blueberry, $12.00

Meader Early-Mid. Elwyn Meader introduction, Univ of NH Ag Exp Stn, Durham, NH, 1971. Medium-large, medium-blue fruit with excellent flavor. Sweet with a hint of acid. Vigorous upright open lightly spreading form, 5–7' tall. Very hardy. Z4 or even Z3.

236A Meader Blueberry, $12.00

Northland Early. (Berkeley x 19-H) Mich St U, 1967. Early highbush x lowbush type bears long loose clusters of medium-small dark blue berries with excellent wild flavor. Very vigorous and productive, 3' moderately spreading bush has limber branches which tolerate snow well. Good for landscaping, bird forage and dessert. Hardy. Z3. **ME Grown**.

237A Northland Blueberry, $12.00

Patriot Early-Mid. US3 [(Dixie x Michigan LB-1) x Earliblue] U Maine, 1976. Partial lowbush parentage. Adaptable to many soil types. Productive berry will fill your super bowl *every* year! Large firm berries with good color and excellent flavor. Upright open spreading 4' bush. Tolerant or resistant to some strains of soil fungus. Hardy. Z3. **ME Grown**.

238A Patriot Blueberry, $12.00

Reka Early. E118 [(Earliblue x Ashworth) x Bluecrop] Ruakura RRC intro, New Zealand, 1985. Medium-sized slightly tart berries have very good flavor. Reka becomes highly productive at an earlier age than most other blueberries, maintaining higher-than-average yields for years to come. Has become well-known among commercial growers for being one of the fastest growing and most adaptable varieties; will grow in a wide range of soil types from sand to heavy clay. Withstands wetter conditions better than most varieties. Burgundy fall color an added bonus. Upright vigorous habit. Z4.

239A Reka Blueberry, $12.00

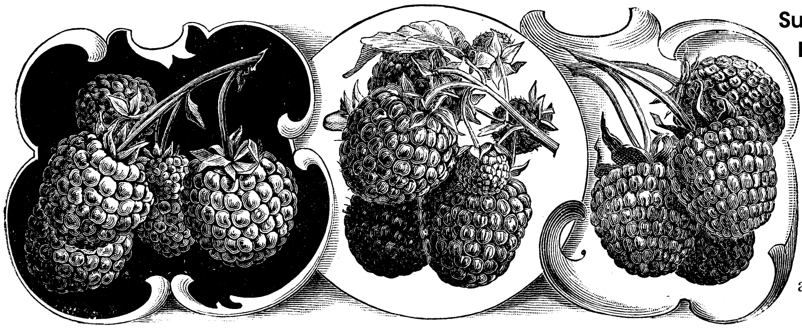
Highbush Blueberries are shallow-rooted and like light acid soil (pH 4.0–5.2) with plenty of organic matter, good drainage, and plenty of water. Space them 3–6' apart (3' for the shorter varieties) in rows 8–10' apart. If your soil is lacking acidity, add peat, woods humus, or 1 cup elemental sulfur per bush.

Dig a hole at least twice the size of the root ball. If you use peat, soak it and then mix it with soil at a one-to-one ratio. We suggest soaking roots in Agri-gel. Plant at the same depth as in the nursery (or slightly deeper). Do not let the roots dry out! Pack the soil firmly and water thoroughly. Plants require at least 1" water per week during the growing season. On most soils, blueberries require regular applications of nitrogen. In the spring, fertilize with 21-0-0 fertilizer at a rate of 1–2 tablespoons per year-of-age plant (e.g., 3–6 Tbsp for a 3-year-old plant). Or use an organic equivalent such as $^{1}/_{2}$–1 qt composted hen manure per plant.

Fruit is produced on vigorous one-year shoots off healthy canes. As canes age they become twiggy and less productive. Begin pruning after three years. Head back long pieces of new growth for a bushier plant. Cut out weak or dead canes and dead tips. Each bush should be allowed to grow 6–10 canes varying in age from one to six years old. Thereafter, remove dead canes and those over 6 years old and encourage new replacement canes. Bushes with regular moderate pruning produce the most berries.

Berries may need net protection from birds. One of the best arrangements I've seen is John Meader's netted "house" in Buckfield. He has about 40 bushes growing under a framework made of posts and 2x4s and completely covered in netting.

Competition with grass may weaken and kill your blueberries. Mulch heavily (3–6" or more) every year with pine needles, cardboard, wood chips, hay, sawdust, even old slab wood. When using sawdust you may want to compensate by adding extra nitrogen.



Raspberries *Rubus* spp.

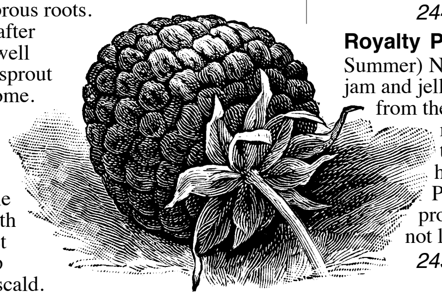
We love raspberries. Fresh raspberries, frozen raspberries, raspberry smoothies, raspberry jam and especially raspberry pie. We even like the dried foliage—best taken from the first-year primocanes—which makes a delicious and healthful tea. A leaf and fruit vinegar is very high in minerals, and the leaf tea makes a great tonic for both uterus and prostate. The root bark is also medicinal. Native to North America, Europe and Asia, they are usually identified as *R. idaeus* or *R. i.* var. *strigosus*. 53 different *Rubus* species and subspecies live in Maine.

Everbearing types bear on first-year canes or primocanes. Everbearing raspberries are particularly valuable for northern growers because they can die to the ground (or be cut to the ground) and still produce a sizable crop the following year. Most everbearers ripen too late for growers in Zones 3 and 4 and cold areas of Zone 5. We don't offer Heritage, a popular producer of high-quality fruit, for that reason.

Summer-bearing cultivars bear on second-year canes or floricanes.

A second variety is not needed for pollination. Prior to planting, soak canes in Agri-gel (see sidebar; available here or in the Organic Growers Supply section of the Seed catalog.)

Please note: Raspberries have very fine, fibrous roots. Often they do not sprout from the plant stem after planting. This is OK. Be patient! Keep them well watered and they should all break dormancy, sprout from the roots and thrive for many years to come. (well-rooted bare-root canes)



Everbearing Raspberries

Jaclyn Early. OBC-F1 x Caroline. U of Maryland intro. Ripens before most primocane varieties making it ideal for colder regions with shorter growing seasons. Large dark red sweet firm fruit. Pest and disease resistant. Holds up better than most varieties to fruit rot and sun scald. Vigorous and tall, growing 4–5'. Z4.

240A Jaclyn Raspberry, bundle of 10, $24.00

Polana Late. Heritage x Zeva Herbsternte. Research Inst of Pomology and Floriculture, Brzezna, Poland, 1991. Very early fruiting everbearing red raspberry has performed very well in our Fedco trials. Ripens in late August or early September in northern districts. According to David Handley of the University of Maine, "as near a thing to a sure bet." Large firm berries with very good flavor on vigorous and productive short canes. Easy to pick: the berries hang off the tops of the plants. Suckers freely. Z4.

241A Polana Raspberry, bundle of 10, $24.00

Summer-bearing Raspberries

Boyne Early-Mid. Chief x Indian Summer. Morden Research Stn, Manitoba, Canada, 1960. Round-conic medium-sized berries with an intense deep dark almost purple color. Strong aromatic tart raspberry flavor and a perfect medium soft texture. Once again, grower John Meader spoke glowingly of Boyne during the Tree Sale last May. Years ago he called it, "an excellent, excellent variety. Boyne is the one to beat if you're going to introduce a new raspberry." Extremely hardy. Shows no tip damage in Zone 3. Leaves tend to curl down over the fruit making it difficult to pick if you're in a hurry. Yields well, but less productive than Killarney. According to friends who make honey and fruit butters, there is no better raspberry for processing. No disease and very little pest damage. Z3.

242A Boyne Raspberry, bundle of 10, $24.00

Latham Mid. MN4 (King x Loudon) U. Minn 1920. A standard raspberry for almost a century, extremely popular and widely grown. Large bright red 1" fruit is roundish, firm, a little crumbly and sprightly sweet, full-flavored and aromatic. Great for fresh eating, canning, freezing, jam, juice, or pie. Ripens over an extended season making it an ideal candidate for the home garden. Canes are 4–5' tall and highly productive. Widely adaptable and very winter hardy, not as spiny as most raspberries, disease resistant. Z3.

243A Latham Raspberry, bundle of 10, $24.00

Prelude Early. NY 1009 (NY 817 x Hilton) NY Stn 1998. Ripens very early and produces a second small crop in the fall, just when you are starting to miss raspberries. Very large red conic fruit is firm and high-quality. Flavor is mild with little acidity but very tasty. Vigorous winter-hardy canes. After several years of trial at John and Pat Meader's Hardy Maine Nursery in Buckfield, John wrote, "I'd strongly recommend Prelude. It showed hardiness equal to Boyne last winter and fruits the earliest of all varieties I've observed (over 30)…Prelude would preceed Boyne nicely; it has good fruit (taste, firmness, size) and seems quite productive; it fruits well over two full weeks." Suckers freely. Z4.

244A Prelude Raspberry, bundle of 10, $24.00

Royalty Purple Mid. (Cumberland x Newburgh) x (Newburgh x Indian Summer) NY Stn, 1982. Cohesive fairly firm large berries make outstanding jam and jelly and even better fresh eating. Their distinctive flavor is different from the red raspberries, with a hint of black raspberry. Extremely robust minimally suckering plants are very productive and open-formed; the berries are right in your face and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Plant in hills (see sidebar). Usually considered Zone 4 but is proving itself into Zone 3 with occasional slight tip dieback. Does not like wet soil. Disease resistant. Z3-4.

245A Royalty Purple Raspberry, bundle of 5, $24.00

Black Raspberries

Jewel Midseason. Bristol x Dundee. Cornell, Geneva, NY. High-yielding variety boasts superb quality and flavor. Glossy large firm juicy fruit melts in your mouth with rich, sweet, lingering flavor. Larger than Bristol. Excellent choice for fresh eating, jams and jellies. Keeps its shape for several days with refrigeration. Black raspberries have been called the "King of Fruits" because of their high levels of antioxidants and anthocyanins which give the berries their dark color. A cure-all for many health conditions; strengthens immune system if eaten regularly. Freeze excess berries and eat them through the winter months to help prevent colds and flus. Vigorous disease-resistant canes. Z4.

246A Jewel Black Raspberry, bundle of 5, $24.00

Raspberries and Blackberries

Cane fruits have shallow perennial roots. They prefer full sun, good air circulation, and well-drained soil rich in organic matter. Avoid soils where tomatoes, peppers, potatoes, strawberries or wild brambles have grown. A well-kept patch can last for 10–20 years.

Prepare planting holes by adding manure (15 bushels dry or 10 bushels fresh per 100 sq ft) and make each large enough to spread out the roots. Do not allow the fine roots to dry out. We suggest soaking roots in Agri-gel for 1–2 hours before planting. Plant 1–2" deeper than in the nursery and then cut the canes off at ground level. Mulch with a thick layer of woodchips. Fertilize liberally each spring with up to 100 lbs manure or compost, 8 lbs bloodmeal or 14 lbs cottonseed meal per 100 foot row. Some sources recommend additional nitrogen feeding each June and August. Plants require 2" water per week during the growing season.

- **Summer-bearing raspberries**: To make a hedgerow, trellis between two wires about 3–4' off the ground and 18–36" apart. Space plants 2' apart. After harvest, prune to the ground the canes that carried fruit (or remove them the following spring). Thin the fresh first-year canes to about 3–4" apart. They will bear fruit next year. During the growing season cut back canes to 5' if they are bending over severely.

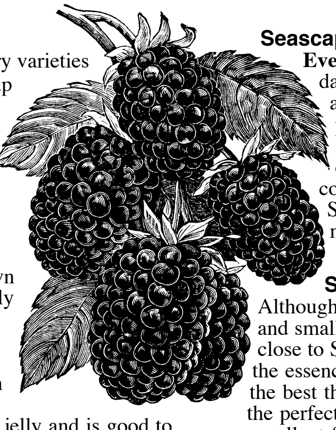
- **Purple and black raspberries** and **blackberries**: Plant in hills 3–4' apart, 3–4 plants per hill. Tie to a center post for support, if needed. Basic pruning is same as above. As they fill in, thin to 5–8 canes per hill. During the early summer, pinch back tip of first year canes to 2½–3' tall. This will encourage lateral fruiting branches. You may run a wire between hills for lateral branching but this is not necessary. In the following spring, cut these fruiting laterals back to 8–12 buds.

- **Everbearing raspberries**: Plant 9–15" apart. Because everbearing types bear fruit on first-year and second-year canes, you have a couple of options. In warmer districts, you can leave the first-year canes to overwinter after they fruit. The following year, you will get a light crop in early summer from those now two-year-old canes, followed by a larger crop later from the new first-year canes. In colder areas generally you would cut all canes to the ground in late fall after the leaves drop, or in early spring; new first-year canes will fruit in mid-late summer.

Agri-gel A hydrogel formulation which absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, non-toxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with one to three gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. *Not allowed for organic certification.* ½ oz.

L702A Agri-gel, $3.00

Blackberries *Rubus* spp.



Nelson Midsummer. Virtually all commercial blackberry varieties are notoriously vigorous but tender up north. You wind up with an annual mess of thorny fruitless groundcover. Nelson has been surviving Maine winters for at least a century. Introduced to us by the descendants of Nelson Fronk whose 1928 family photograph taken on their farm northeast of Farmington shows the blackberry growing next to the barn. John Meader, who grows it for Fedco, calls it "exceptionally hardy," in fact, one of the most enduring blackberries he has ever grown. The inch-thick canes are tall, sturdy and upright. They can be grown on posts but also do well free standing. Fruit is moderately large, quite juicy and, when ripe, it has a sweet, true blackberry taste. What really makes this blackberry a standout is its high productivity: 16–18 blossoms on the central blossom stalk is the highest John has ever seen on a blackberry. He gets four good pickings from his patch over two weeks in mid-August. Nelson makes excellent jelly and is good to eat right from the bush. Disease resistant and, like all blackberries, spreads quickly so give it room to move. We recommend planting in Zone 4 or maybe Zone 3. **ME Grown**. (well-rooted bare-root canes)

247A Nelson Blackberry, bundle of 3, $26.00

Rubus odoratus **Thimbleberry** 3-6' x 6-12' Also called **Flowering Raspberry**, **False Raspberry**, **Ornamental** or **Purple-flowering Raspberry**. Relative of the cultivated raspberry, grown for its fragrant rosy-purple flowers and nutritious fruit. Flowers from June–August. Attracts pollinator insects throughout the entire summer making it an excellent addition to wildlife hedges. Low-maintenance and easy to grow. Thornless canes sucker and spread into a dense colony. Tolerates a range of conditions, average to acidic soil, sun or shade. Berries contain phytonutrients ellagic acid and resveratrol, regenerative and beneficial to health. New leaves can be made into a medicinal tea much like its fruiting cousin, red raspberry. Lobed palmate leaves fade to a pale yellow in the fall. Native to eastern North America. Z4. (1-2' single canes)

248A Thimbleberry, $12.00

Strawberries *Fragaria* x *ananassa*

A major highlight of every summer is picking strawberries. In central Maine strawberry season usually coincides with the summer solstice. Although no one knows where the common name *strawberry* originated, idle speculation has it that it comes from the practice of putting straw down between the rows for pickers to sit on while they sample the fruit and catch up with each other.

Modern strawberries, developed about 1830, are a hybrid of *F. chiloensis* (native of Chile) and *F. virginiana* (native of North America). Royce Bringhurst of the University of California, Davis, developed day-neutral strawberries from wild plants found in Utah's Wasatch Mountains. He crossed these with modern commercial varieties and introduced the first day-neutrals in 1980.

50 plants will plant from 50-100'. (virus-free bare-root stock)

Annapolis Early. K74-5 [(Micmac x Raritan) x Earliglow] Kentville, Nova Scotia, 1984. Get a jump on strawberry season with Annapolis. Fruitful even under chilly conditions, turns red consistently and reliably each year before other berries. Large plump light-red fruit maintains its size through several pickings. Firm tender delicious flesh. A favorite among those who grow it. Vigorous and winter-hardy. Recommended for growers in northern districts. Z3

L249A Annapolis Strawberry, bundle of 50, $15.00

Evie- (Everglade x J92D12) An "improved" new **everbearing** variety from Peter Vinson's breeding program in Kent, England. One of the most productive of the day-neutral strawberries. When given ideal conditions each plant can produce over a quart throughout the growing season. Glossy red berries are easy to grow, full of flavor, and maintain good size. Less sensitive to warmer temperatures that often bring day-neutrals to a halt. Z4.

L250A Evie-2 Strawberry, bundle of 50, $18.00

Honeoye Early-Mid. NY 1409 (Vibrant x Holiday) NY Station, 1979. Tough, hardy, vigorous, extremely productive, and easy to grow. The freezer-filler of the strawberry patch. Large conic bright red fruit produced over long fruiting season. Firm flesh with tart—and surprisingly good—flavor. Excellent freezing quality. A week before Jewel. Probably the most popular commercial berry in the Northeast. Plant in well-drained soil to avoid red stele. Susceptible to verticillium wilt. Z3-4.

L251A Honeoye Strawberry, bundle of 50, $15.00

Jewel Mid-Late. NY 1324 [(Senga Sengana x NY E-58) x Holiday] NY Stn, 1985. Shaun Keenan suggested that we add Jewel to our list; he even went so far as to say that Jewel tasted almost as good as Sparkle. Although I don't think I'd go quite that far, I was very impressed with the berry. Large bright red glossy perfectly shaped fruit is firm, sweet and slightly aromatic. Unlike Sparkle, Earliglow and many other varieties, it keeps its size all season. Extremely popular with commercial growers and is Gene's favorite. Good freezing quality. Low incidence of fruit rots and foliar diseases. Not resistant to verticillium or red stele. Z4.

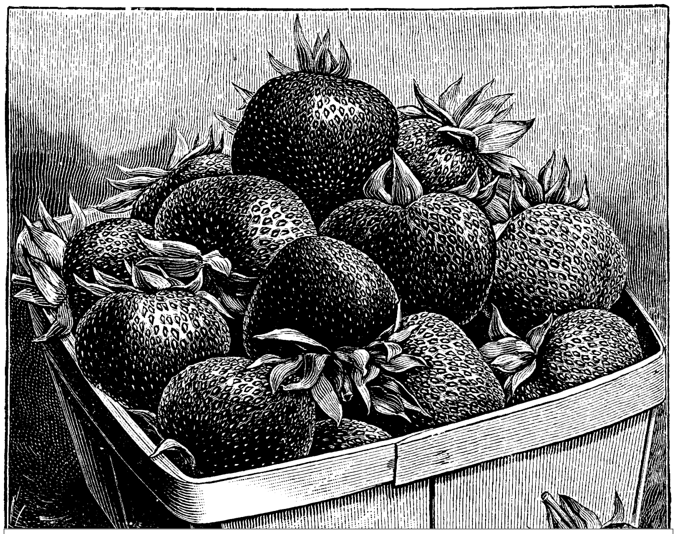
L252A Jewel Strawberry, bundle of 50, $15.00

Seascape CN 49. Developed by Royce Bringhurst, U Cal, Davis, 1991. **Everbearing** day-neutral strawberry sets flower buds regardless of day length, produces over a very long season, fruiting all summer and into fall. Remove flower buds for the first six weeks after planting and you'll still get a crop the first year. Seascape is showing excellent results in Northeast trials. Medium-to-long conic high-yielding firm productive reliable fruit with bright red color and excellent flavor. Broad resistance to fungal diseases. Somewhat susceptible to common leaf spot and two-spotted spider mite. Should be hardy in all but the coldest districts. Z3.

L253A Seascape Strawberry, bundle of 50, $18.00

Sparkle Mid-Late. (Fairfax x Aberdeen) NJ Ag Exp Stn, 1942. Although not a favorite with commercial growers due to moderate crop size and smaller berries, I've yet to taste a strawberry that comes even remotely close to Sparkle. To me, they possess a flavor that can only be described as the essence of strawberry. The best in an early year, the best in a late year, the best this year, last year, every year. This is the berry if you want to eat the perfect strawberry. Soft berries make delicious fresh eating and are also excellent for jams and freezing. One of its few drawbacks is that it tends to lose color in the freezer. First fruit set is large; the rest are small. Resistant to most strains of red stele. Blooms late, rarely affected by spring frost. Z3.

L254A Sparkle Strawberry, bundle of 50, $15.00



Strawberries

Keep cold or refrigerate between arrival and planting. We ship with roots slightly on the dry side. If you cannot plant them for a while, uncover the roots, mist them with water and re-cover, leaving tops exposed. Place bundle in paper bag and store on the bottom shelf of your fridge. Don't be alarmed if the tops become brown or mushy: they will generate new leaves.

Strawberries require good air drainage, well-drained fertile soil with pH of 5.8–6.2, thick mulch and full sun. Avoid soils where tomatoes, peppers or potatoes have grown in the past 4 years. Plant strawberries at the same depth as they were in the nursery, with the middle of the crown at soil level. Keep your patch free of weeds. They require $^3/_4$–1" water per week during April, May, August, September and October. Mulch with hay or straw in late fall to protect plants over winter. In the spring, pull mulch off plants and place between rows where it will keep fruit dry and clean during the summer. It can also be raked back over the plants if frost threatens flower buds. Floating rowcover may also be used for winter and frost protection.

June-Bearing Strawberries

Matted Row system: Set plants 12–24" apart in rows 3' apart. Allow plants to produce runners freely and fill in the row. Remove all flowers the first year. Harvest berries the second summer. Immediately after harvest, fertilize liberally with compost or aged manure and renovate the row. By hand or with a tiller, narrow the row to 12" wide. Thin plants to 4–5" apart within the row. By this method a bed can last about 5 years. Then plow it under and start again.

Everbearing or **Day-Neutral Strawberries** flower regardless of day length as long as temperatures are between 35 and 85°, and produce fruit from June to October. They are also uncommonly productive—about one pound of fruit per plant the first year, and slightly less the second year. Productivity peaks in August the first year. The second year, berry size decreases in the hottest weather and increases in cooler weather.

They are heavy feeders and benefit from 3–4" of manure worked 4–6" into the soil prior to planting, and monthly side-dressing of manure throughout the season. Plant 6–12" apart. Mulch with black plastic or thick straw immediately after planting. Remove flowers for the first six weeks, and remove all runners the first season. Mulch in late fall. Side-dress with manure monthly during the second season beginning in May. Till under after the second year and begin again.

Grapes *Vitis* spp. Grapes are easy to grow and can bear plentifully even in northern New England. They begin fruiting in the second or third year after planting. They are rugged and cold-hardy. Our vines bear consistently every year. Although many people prefer seedless types for table use, seeded varieties can be quite enjoyable right off the vine if you don't mind "grape nuts." Grape seeds contain an antioxidant that is twice as powerful as Vitamin C.

The popularity of drinking wine is not new. The Chinese were fermenting it from hawthorn berries nearly 12,000 years ago. The first wine from grapes was likely made in Turkey or Iran 7,000 years ago. Traces of red wine were found in the tomb of the Egyptian pharaoh Tutankhamen. Resveratrol is the polyphenol at the center of the current red wine hoopla. It appears to have anti-carcinogenic and anti-inflammatory properties as well as anti-microbial agents that work to prevent heart disease. Red wine is good for you!

Most grape varieties are bred from a combination of different species, *V. labrusca* and *V. vinifera* being the most important. *Labrusca* is native to the eastern U.S., has a wild tart musky (foxy) flavor, and is hardy and disease-resistant. Concord is the best-known of the labruscas. *Vinifera*, native to Europe, is extremely high quality, and is the most important wine grape in the world, but is not cold hardy and is prone to disease. Riesling and chardonnay are the two hardiest pure *vinifera* grapes.

In central Maine, "very early" grapes begin ripening in mid-August, while "midseason" ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas. **Most do not require a second cultivar for pollination.** (1-2 yr well-rooted vines)

Beta Midseason. (*V. riparia* x Concord) Originated by Louis Suelter (pronounced *Sool*-ter) in Minn, 1881. Beta was named after his wife and is pronounced *Bett*-uh not *Bay*-tuh. Old standby, excellent for juice, jelly and jam. Decent eating off the vine when completely ripe. Medium-sized black berries in moderately compact to loose clusters. Early to bloom, early to ripen. Vigorous healthy productive vines, extremely hardy. Z3. **ME Grown**.

255A Beta Grape, $13.00

Bluebell Mid. MN 158 (Beta x unknown) Developed by JM Dorsey, U Minn, 1944. Our most popular seeded grape; it does everything well. Extremely hardy, to –30°, *labrusca* type ripens 2–3 weeks earlier than Concord. While it ripens beautifully from central Maine south, it may not have time to ripen in some northernmost locales. Delicious sweet flavor makes them excellent for fresh eating, jelly and juice. Clusters of medium-sized dark berries with a heavy blue bloom. Strong, productive, vigorous—but not rampant—vine. A joy to grow. Immune to most or all fungal diseases. Rare. Z3. **ME Grown**.

256A Bluebell Grape, $13.00

Frontenac Gris Mid-Late. Sport of Frontenac. U. Minn, Excelsior, MN, 2003. Identical to the original Frontenac but the berries are coppery-peach colored instead of red. Hardy muscat-like grapes make a very good white wine—crisp and clean—flavored with pronounced undertones of stone fruit. Often used in semi-sweet, dessert and ice wines. Wine has a light amber hue. Use sugar to balance the high-acid juice. Tasty for fresh eating. Sprawling vigorous hardy vines bear heavily and tolerate a range of soils but require good drainage. Low susceptibility to rots (including botrytis), downy mildew, and fungal diseases. Z4 or maybe Z3.

257A Frontenac Gris Grape, $13.00

Kay Gray Mid. ES217 [(MN78 x Golden Muscat) x open-pollinated] Swenson intro, Osceola, WI, 1981. Tight clusters of medium-large firm white slip-skin berries. High quality, mild foxy flavor good for dessert, juice, or wine. Generally used for blending but some years will produce an exceptional varietal wine on its own. Very reliable moderately vigorous productive vine. Fruit hangs on well after ripening. Extremely good disease resistance. Very hardy. Z3. **ME Grown**.

258A Kay Gray Grape, $13.00

King of the North Mid. (*V. riparia* x Concord-type) Madison, WI. Very hardy dark-skinned table and wine grape originally named and offered by Jung's Nursery many years ago. Rediscovered during the last few years and making an enthusiastic comeback. According to Minnesota grower and winemaker John Marshall, King of the North is the one variety he recommends for both a good table grape and a decent red "Concord style" wine. He says that it's "very delicious particularly as a home wine although it is also meeting success as a commercial wine grape." Produces light red sweet tasty juice. Ripens slightly later than Bluebell. Z3. **ME Grown**.

259A King of the North Grape, $13.00

Marquette Mid-Late. MN 1211 (MN 1094 x Rivat 262) U Minn, 2006. A wine grape that many northern growers have long awaited. One parent, MN 1094, has both *V. riparia* and *V. vinifera* in its background. The other, Rivat 262, is a French hybrid with pinot noir as one of its parents. Not only is Marquette heavy with *vinifera*, the vines are also extremely hardy. And there's more: sugar levels are high—in the range of 26.1 Brix—and the acid levels are lower than Frontenac. Substantial tannins will add complexity to your "pinot noir"-style red table wine. Small-medium bluish-black berries in small-medium sized clusers. Ripens a few days before Frontenac. Z3.

260A Marquette Grape, $13.00

Prairie Star Mid. ES 3-24-7 (ES 2-7-13 x ES 2-8-1) Swenson intro, U Minn, 2000. Long slightly loose clusters of medium-sized lush white fruit. Excellent sugar content and acidity for winemaking. Makes a nice classy varietal with no foxy flavor but also can be added to enhance other more neutral wines. Tom Plocher and Bob Parke reported in *Notes from the North* that the wine has a "fullness in the mouth and finish that is uncommon among hybrids…In some years it develops a delicate floral nose that allows it to stand as a single variety wine. In most years however, Prairie Star is an ideal blending component to add body and finish to thin white wines." Moderate disease resistance. Extremely hardy to –40°. Z3.

261A Prairie Star Grape, $13.00

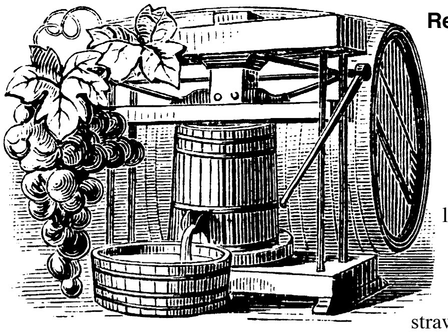
Grapes prefer soils with pH of 5.8–7.0. For the best grapes, provide moderate fertility, very well-drained soil and full sun. Every June we thoroughly weed the grapes under our arbor, then mulch very liberally with old hay. After that, we don't do a thing to them except harvest in late summer and prune in late fall. Space 8–12' apart in rows 8–12' apart.

Spread the roots out, planting the crown even with the soil surface. Do not prune roots. Pack soil well. Water and mulch well. After frost danger has passed, prune vines back to 3–5 strong buds. Continue to mulch annually with hay or straw. Every few years fertilize liberally with granite dust.

Grapes require annual pruning and a trellis or arbor, though in Italy they still sometimes grow them in maple trees. All systems for growing grapes involve removal of most growth in spring or late fall to encourage new canes, as fruit is produced on these canes. There are many systems for training grapes. Some are suited to laying down and covering tender varieties over winter. Any good book on grape growing will show you several options. We suggest the Hudson River Umbrella or the Four-arm Kniffin system.

People sometimes ask about wire. The current vineyard standard is high-tensile-strength class III galvanized steel wire. The gauge should be 11 to 12.5. The wire is generally sold by weight. 100 pounds of 11 gauge measures about 2600 feet. 100 pounds of 12.5 measures about 3800 feet.

Grapes rated for Zone 5 can be grown in Zones 3 and 4. To prevent winter injury, remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover. This task is neither difficult nor time-consuming, and does work.



Reliance Seedless Very Early. Arkansas 1163 (Ontario x Suffolk Red) Arkansas Stn, 1982. Still the highest-quality seedless grape for the North, although the recently released Somerset Seedless is looking pretty nice. Good for fresh eating or juice. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Stores well in a root cellar for 1–2 months. Seems hardy although it has shown significant dieback in our Zone 4 trials. You may need to lay vines down for the winter in colder areas (see sidebar). While the literature cautions about Reliance's disease susceptibility, our vines have performed well and have remained disease-free. Z4-5. **ME Grown**.

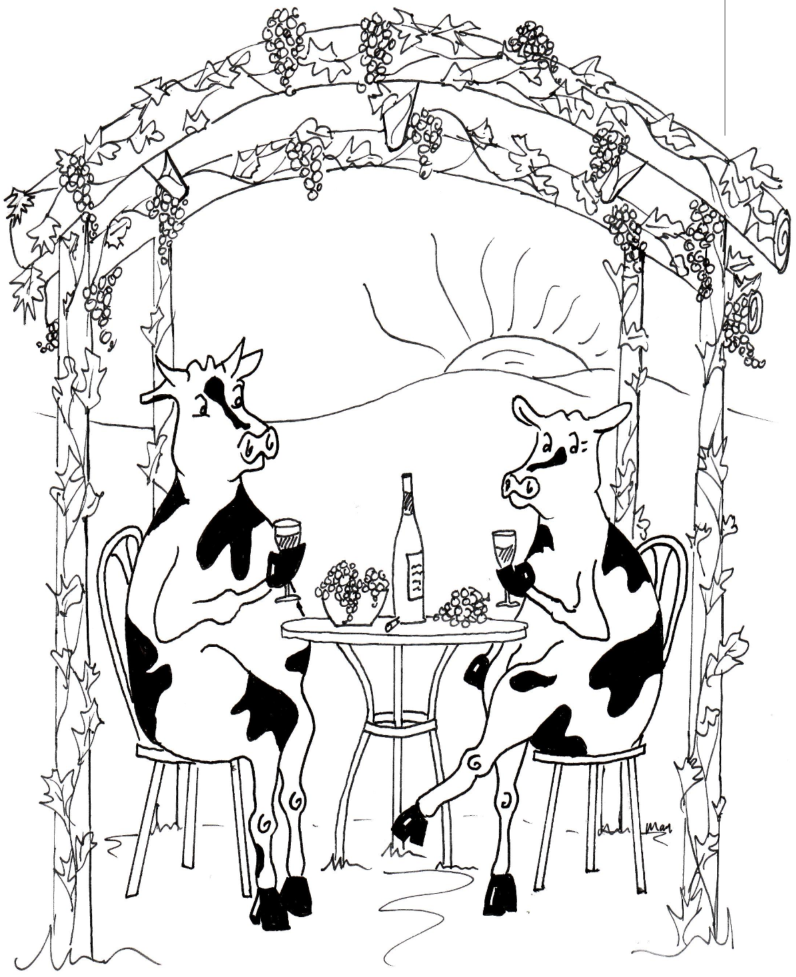
262A Reliance Seedless Grape, $13.00

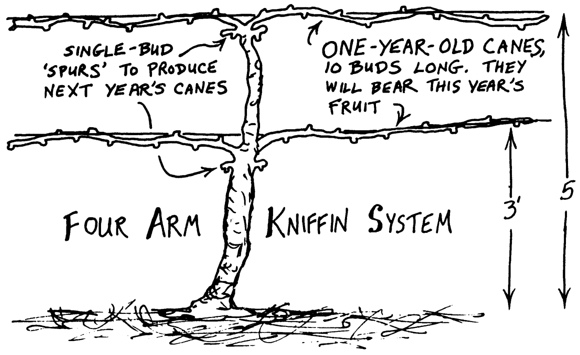
Somerset Seedless Early. ES12-7-98 (ES5-3-64 x Petite Jewel) Swenson intro. Although not as hardy as Beta, Bluebell or Chontay, Somerset is likely the hardiest seedless grape available today. One of the last Swenson introductions before the renowned and beloved grape breeder passed away in December 2004. Medium-sized loose clusters with small sweet ruddy reddish-golden fruit. Crispy texture and great flavor. Easy to grow but not overly vigorous. Z4.

263A Somerset Seedless Grape, $13.00

Valiant Early. (Fredonia x *V. riparia*) SD Stn, 1982. Cross between Fredonia and a wild grape from Montana. As hardy as Beta and a considerably better table grape in taste and quality, also matures earlier. Small to medium-sized blue-black 4" compact clusters. Good eating right off the vine, excellent for juice and jelly. Sweet fruit is tangy without tartness. Produces a Concord-style red wine or port. Reliable and heavy bearing. Precocious; may need thinning in early years. Susceptible to downy mildew and black rot. Very popular in the upper midwest where the summers are consistently drier than ours, although it does very well here in dry years. Extremely hardy vines will withstand temperatures below –50°. Z3. **ME Grown**.

264A Valiant Grape, $13.00




SINGLE-BUD 'SPURS' TO PRODUCE NEXT YEAR'S CANES
ONE-YEAR-OLD CANES, 10 BUDS LONG. THEY WILL BEAR THIS YEAR'S FRUIT
FOUR ARM KNIFFIN SYSTEM
3'
5'

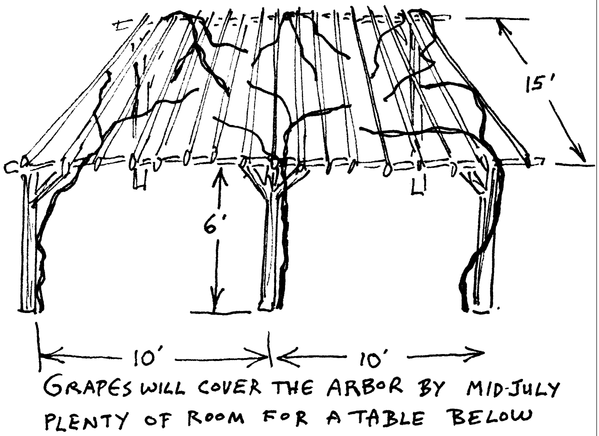
Pruning Grapes in the Four-Arm Kniffin System

First year: Cut plant back when planting to a single stem, 6" long with two to three buds, after the last danger of frost has passed.

Second year: Set up two wires, 3' and 5' high, stretched between posts. Cut plant back to a single stem, 6 feet long and tie it to the top wire. Leave 4-6 buds near each wire and remove others.

Third year: Select 8 canes, 4 for each wire, and remove the rest. Tie two canes to each wire, one in each direction. Cut these four canes back to 10 buds each. Cut the remaining four canes back to one or two buds each.

Later years: In the spring, remove last year's fruiting canes. Select eight new canes. Cut 4 of them to 10 buds each, and tie them to your wires. Cut the remaining four back to two buds each. These will produce next year's fruiting canes. Remove all other canes. The number of buds left on the fruiting canes may be adjusted to encourage more fruit or larger size.


15'
6'
10'
10'
GRAPES WILL COVER THE ARBOR BY MID-JULY
PLENTY OF ROOM FOR A TABLE BELOW

Growing Grapes on an Arbor

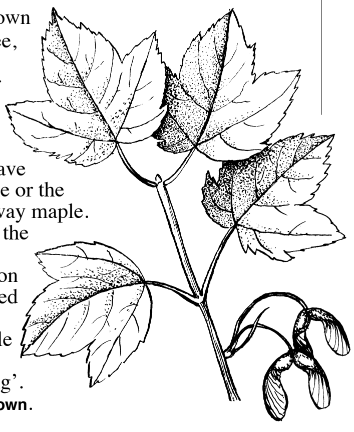
Train one or more vines onto an arbor or gazebo; we have 8 vines, spaced about 10' apart. Prune each vine back to a single trunk. Encourage several permanent arms from each trunk. Every winter remove 70-90% of the the past summer's growth. Next summer new fruiting canes will grow off the permanent arms.

Trees, Shrubs, Roots and Vines

As we plant, experiment, observe and study the landscape, we have become convinced that what plants hold in common far outweighs their differences. Trees, shrubs, roots and vines all intermingle, interact and cooperate with one another to make the landscape what it is—the ultimate polyculture—the model to which we aspire in our own yards. We offer the best of the best for you to create your own landscape. See our chart on pages 50–51 for information at a glance about the roles that these plants can play.

In the past we have attempted to separate our offerings into categories and we were never quite satisfied. When does a small tree become a shrub? When does a large shrub become a tree? What about the roots that have vining tops? How do we categorize beautiful flowering trees that attract wildlife and produce fruit for the kitchen table? Where do we put the edible ornamentals? The ornamental edibles? Finding your favorite plant might seem difficult at first. But fret not: they are alphabetized by botanical (Latin) name. And you can find them all listed by common name as well as Latin in the **index inside the back cover**.

All the listings in this section are well-rooted bare-root plants, approximately 1–3' tall, unless otherwise noted.



***Acer rubrum* Red Maple** 50-60' Also known as **Swamp** or **Soft Maple**. Excellent yard tree, usually has a central leader and an upright growth habit, compared to the bushier sugar maple. In early spring the dark red flowers cover the driveway long before any leaves appear. In the fall the foliage turns electric orange, yellow and brilliant red. Does not have the weak branching problems of silver maple or the invasive "qualities" of the abominable Norway maple. Sometimes tapped for sap in spring. During the excellent 2011 sugaring season, Jen's red maple produced a sap-to-syrup ratio nearly on par with sugar maples! Inner bark can be used medicinally in teas. Transplants easily. Prefers moist acid conditions but is adaptable to dry locations. Note that this is *not* the red-leaf maple *A. platanoides* 'Crimson King'. Native to eastern North America. Z3. **ME Grown**.

265A Red Maple, $16.00

***A. saccharum* Sugar Maple** 50-100' Largest of our native maples, also known as **Rock Maple**, valued for shade, syrup, and lumber. Traditionally a pair of sugar maples was planted in front of a farmhouse on the inhabitants' wedding day. Those "wedding trees" still grace many Maine front yards after all these years. Famous for its yellow, gold, scarlet and crimson fall foliage and its fresh sap which is boiled down to make real maple syrup. Huge upright spreading form with light grey bark. Shade tolerant, making it easy to interplant in existing woods. Prefers moist, well-drained soils. Cold hardy. Susceptible to salt and air pollution; not a good city tree. Native Quebec to Gulf Coast. Z3. **ME Grown**.

266A Sugar Maple, $16.00

Kiwis are dioecious vines, meaning male and female flowers are on separate plants, so you must plant a male plant to pollinate the fruiting female plants. They are extremely vigorous and require a rugged trellis or arbor and heavy pruning. Plant vines 10' apart each way in moderately rich moist but well-drained soil (pH 5.0–6.5). One male will pollinate several females as long as they are within approximately 30' of the male. Although the vines are quite hardy, the flowers and foliage are frost sensitive. Planting on a northern exposure will delay budding in spring and reduce risk of frost damage. Protection from winter winds and intense winter sun is also recommended. Mulch with hay or wood chips. On poor soil fertilize with compost annually.

On a trellis: Train a single trunk to the trellis wires and then train two permanent 7–10' cordons (arms) off the trunk. Each winter remove at least 70% of old growth, leaving a dozen or so one-year-old laterals. That year's fruit will develop on fruit spurs growing off these one-year-old canes (laterals). On extremely rampant vines, summer pruning may be required to keep the vines from choking out your farm.

On an arbor or gazebo: Once established, prune 70% of the old growth each year and leave some new canes for this year's fruiting.

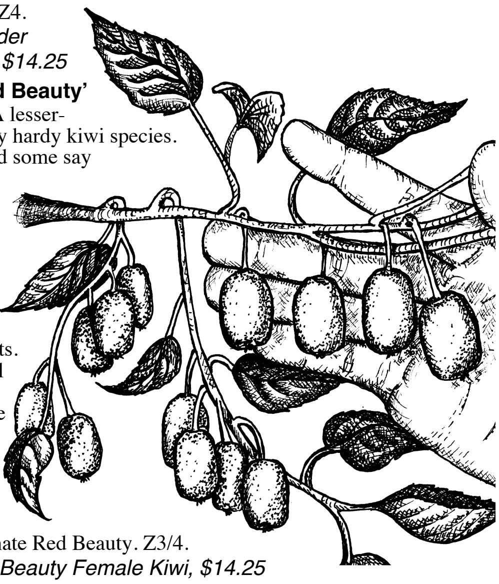
***Actinidia* Hardy Kiwi** Productive twining vine climbs 20' or more and produces delicious grape-sized kiwi fruits in late summer. Unlike supermarket kiwis, the skin is smooth and edible. Easy to grow in rich well-drained soils. Will begin producing in 5–9 years. Mature plants may produce up to 100 lbs of fruit. No significant pest or disease problems. Some growers have been frustrated with vines that have proven unproductive or not hardy. After consulting several long-time Maine growers, we believe that we've found winning combinations. Look for more varieties in the years to come. Both male and female plants required for fruit. One male will pollinate at least three females of the same species. The females bear the fruit. Native to eastern Asia. (well-rooted 2-3 yr vines)

***A. arguta* 'Michigan State'** (**female**) Summer. Michigan State University. Grower Tom Vigue calls the thumb-shaped thumb-sized fruit "sweet and most highly luscious." The fruit is a bit sour to my palate. Although it might make you wince, the overall experience is joyous and delicious. Larger than other varieties. Z4.

267A Michigan State Female Kiwi, $14.25

***A. a.* 'Meader'** Hardy fruitless **male** kiwi suitable for pollinating Michigan State female. Extremely vigorous vines are often grown just for their beautiful dark green ornamental foliage. Z4.

268A Meader Male Kiwi, $14.25



***A. kolomikta* 'Red Beauty'** (**female**) Summer. A lesser-known but extremely hardy kiwi species. Fruit is smaller—and some say tastier—than arguta fruit. Vines are not as wildly vigorous. (Argutas can just about pull down a tree.) Hardier than the argutas, should thrive even in northernmost districts. Prefers moist neutral to slightly alkaline well-drained average soil. Full sun to partial shade. Requires Arctic Beauty for pollination. Arguta males will not pollinate Red Beauty. Z3/4.

269A Red Beauty Female Kiwi, $14.25

***A. k.* 'Arctic Beauty'** Fruitless **male** pollinator for Red Beauty kiwi. Often grown by itself as an ornamental for its beautiful foliage. Young leaves emerge purple, then become variegated pink, white and green. Same cultural requirements as Red Beauty. Heat, excessive fertilization or shade may reduce the leaf color. White 5-petaled 1/2" fragrant flowers. Z3/4.

270A Arctic Beauty Male Kiwi, $14.25

***Aesculus parviflora* Bottlebrush Buckeye** 10-12' x 15' Irregular large wide multi-stemmed suckering shrub with beautiful horse chestnut–like foliage and jaw-dropping midsummer flowers. Will spread over time to create large multi-leveled colonies. Foliage is medium to dark green, turning yellow-green in fall and always disease-free. In early summer thin green asparagus-like spears appear across the surface of the colony and then open up into spectacular 10–18" wispy feathery panicles that stand upright above the foliage in a mass. A major show-stopper in and out of bloom. Grows in sun but it will thrive in the shade. Prefers well-drained acid soil. Native to southeastern U.S. Z4. **ME Grown**.

271A Bottlebrush Buckeye, $16.25

ME Grown = grown in Maine by a member of the Fedco growers coop

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- ☐ **Ship** around May 1. (Add $15 fee to shipping charges.)

Substitutions (see p. 3)	Yes	No
I will accept a similar variety.	☐	☐
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* Fedco members qualify for a 1% discount on all purchases, see p. 7 for more information. Take your member discount on the order Subtotal.

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Subtotal over $200	take 10%
over $400	take 15%
over $1000	take 20%

Subtotal from reverse	
Volume Discount	–
* **1% Member Discount**, from Subtotal	–
Adjusted Total	=
ME residents & pickups add 5% **Tax**	+
Shipping	+
Grand Total	=

Shipping Charges: (we ship by UPS or Priority Mail, our choice)

	minimum	if your **Adjusted Total** is
New England	$18.00	over $150.00, pay 12% of adjusted total
NY, NJ, & PA	$20.00	over $167.00, pay 12% of adjusted total
All other states	$25.00	over $208.00, pay 12% of adjusted total

Orders to **Alaska** go Priority Mail; be sure we have a *Postal Address*

	minimum	if your **Adjusted Total** is
Priority Mail	$25.00	over $125.00, pay 20% of adjusted total

Small & Light: All your stock numbers begin with **L**.

	minimum	if your **Adjusted Total** is
Small & Light	$10.00	over $83.00, pay 12% of adjusted total

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- We ship between April 1 and April 12; we will add a $15 handling fee if you specify a particular shipping date within this period or if you specify late shipment around May 1.
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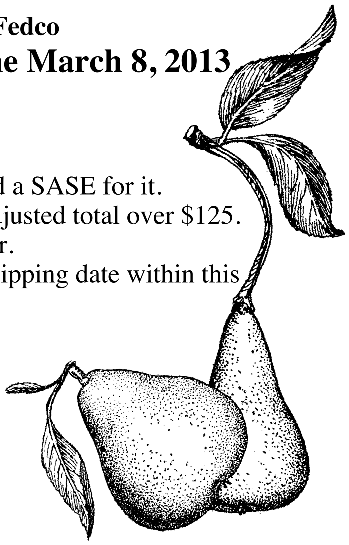
We accept Visa or MasterCard ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Exp. Date ☐☐ ☐☐



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I will accept a similar variety.	☐	☐
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Subtotal over $200	take 10%
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Subtotal from reverse	
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* **1% Member Discount**, from Subtotal	–
Adjusted Total	=
ME residents & pickups add 5% **Tax**	+
Shipping	+
Grand Total	=

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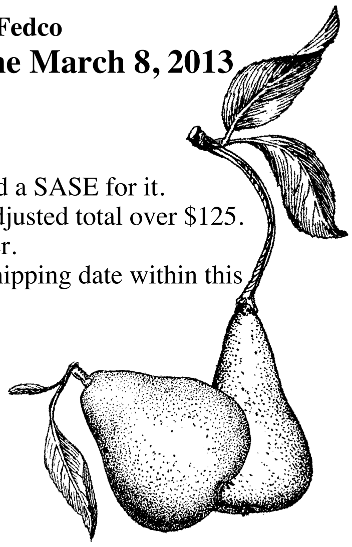

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☐ Donate *all* my refund to MOFGA ☐ up to $5.00 ☐ up to $2.00

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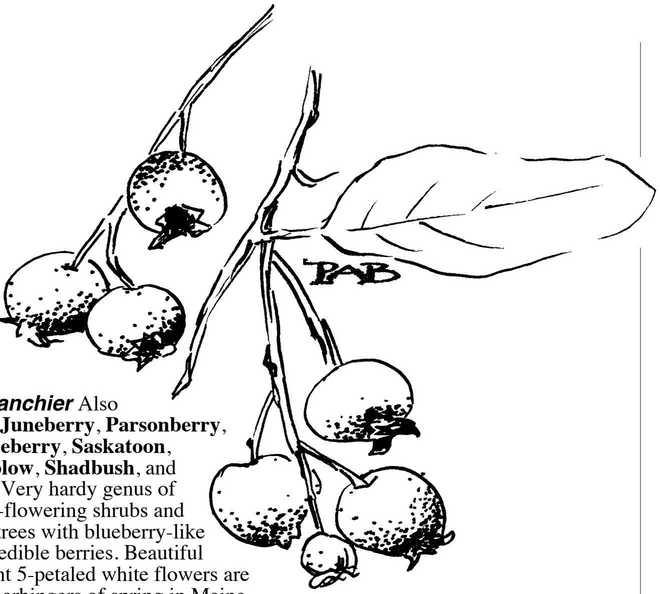


Amelanchier Also called **Juneberry**, **Parsonberry**, **Serviceberry**, **Saskatoon**, **Shadblow**, **Shadbush**, and **Shad**. Very hardy genus of spring-flowering shrubs and small trees with blueberry-like sweet edible berries. Beautiful fragrant 5-petaled white flowers are early harbingers of spring in Maine. Purplish-black sweet berries good in pies, cobblers, jellies, jams, smoothies and cakes. Berries are about the size of a lowbush blueberry, or a bit larger, and seedier. Historically used by native peoples to make pemmican. Popular with wildlife. Nice red-orange fall color. Thrives along stream beds as well as on rocky slopes. Tolerates partial shade, salt, pollution and wet spots but not standing water. Considered to be self-fruitful but we recommend planting with other Amelanchiers to ensure pollination. No serious insect or disease problems. Note: taxonomically, Amelanchiers are a point of confusion in the nursery trade where common names and even botanical names are used interchangeably. Furthermore, these plants easily hybridize with each other. Below, we've highlighted salient features of each species.

***A. alnifolia* 'Regent' Juneberry** 4-6' Commonly called **Saskatoon**. J Candrian introduction, Regent, ND. Compact shrub form fruits in mid-July in central Maine. Excellent for fresh eating. Selected for attractive foliage and prolific purple-magenta berries. Makes a nice hedge. Prefers fertile, neutral soil and full sun. Multiple Regents will pollinate each other. Native to northwestern North America. Z2.

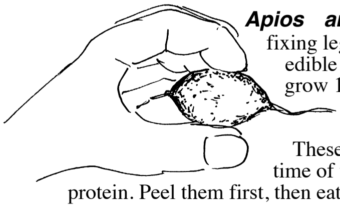
272A Regent Juneberry, $14.00

***A. canadensis* Shadblow Serviceberry** 6-20' Usually a rather short multi-stemmed upright suckering shrub. Same purplish-black sweet juicy "Juneberries" as the others, though generally not cultivated for the fruit. Some say early settlers named it Serviceberry because when it blooms, the ground is thawed enough to hold a burial service for those who passed away during the winter. Likes well-drained acid soils. Native from Maine to South Carolina. Z3.

273A Shadblow Serviceberry, $14.00

***A. laevis* Allegheny Serviceberry** 15-25' The most common Amelanchier in Maine. The unique purplish-orange bronzed color of the unfolding leaves on this understory tree is a favorite spring sight. Pendulous white blossoms preceed the young leaves and are followed by berries that ripen in midsummer. Referred to as "shad" by old-timers because the blossoms coinicide with spring shad run in certain Maine streams. Likes well-drained acid soils along the edge of fields, streams and roads. Native midwest to eastern U.S. and Canada. Z2. **ME Grown.**

274A Allegheny Serviceberry, $14.00

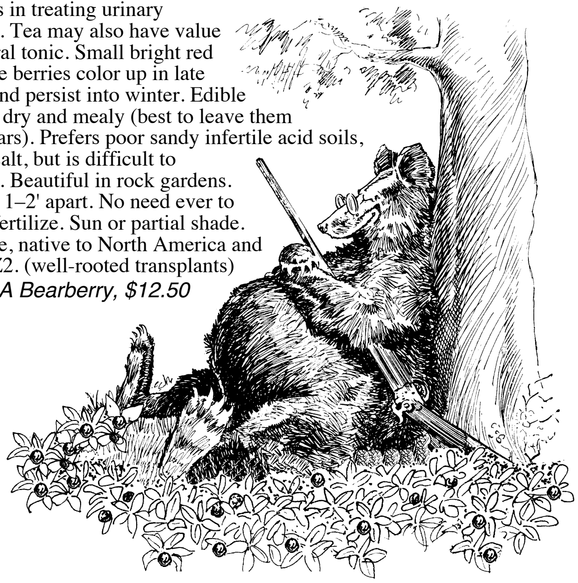


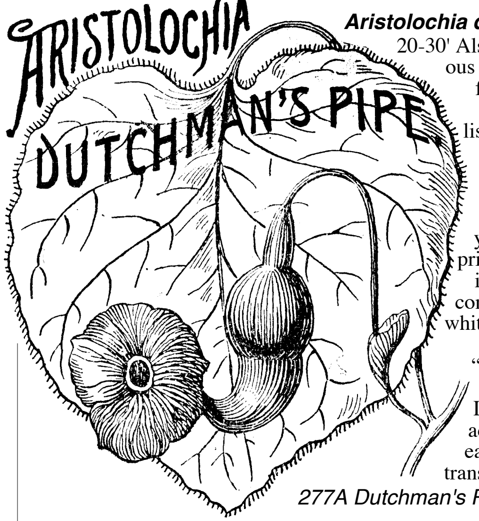
***Apios americana* Groundnut** Nitrogen-fixing leguminous perennial twining vine with edible tubers. Grows to about 5' long. Stems grow 1–6" deep and have periodic swellings (the groundnuts) that range from marble size to larger than a golf ball. These edible tubers can be harvested at any time of the year. Delicious, high in starch and protein. Peel them first, then eat them boiled, roasted, baked, mashed, sliced, diced or even pureed. Not recommended raw. Will keep a month or more in the fridge or root cellar, or dry them and they keep forever. An essential food for native Americans for hundreds of years; also essential to the survival of the first European settlers in New England. Flowers appear in late August in central Maine. Don't miss them: they are small but rather astonishing. From a distance they look brownish, but up close they are a combination of maroon, pink and violet. 2–4" bean pods. Prefers moist sandy soil. Full to partial sun. Keep it out of your garden as it will spread. Can be vigorous and requires a trellis of some sort. We have ours growing on birch branches stuck in the ground and then woven together. Establish a patch and let it go. Native to river banks and flood plains, southern Canada, eastern and midwestern U.S. Z3. **ME Grown.** (Tubers)

L275A Groundnut, bundle of 5, $18.50

***Arctostaphylos uva-ursi* Bearberry** Also called **Kinnikinick**, **Hog Cranberry**, **Mealberry**, **Sandberry**, **Mountain Box**, or **Bear's Grape**. Delicate low-growing and beautiful glossy evergreen spreading groundcover. One plant can spread to 15'. Small pinkish-white flowers in spring. Leaves are diuretic, astringent and anti-bacterial. Used before modern antibiotics in treating urinary infections. Tea may also have value as a general tonic. Small bright red drupe-type berries color up in late summer and persist into winter. Edible but rather dry and mealy (best to leave them for the bears). Prefers poor sandy infertile acid soils, tolerates salt, but is difficult to transplant. Beautiful in rock gardens. Set plants 1–2' apart. No need ever to prune or fertilize. Sun or partial shade. Self-fertile, native to North America and Eurasia. Z2. (well-rooted transplants)

L276A Bearberry, $12.50



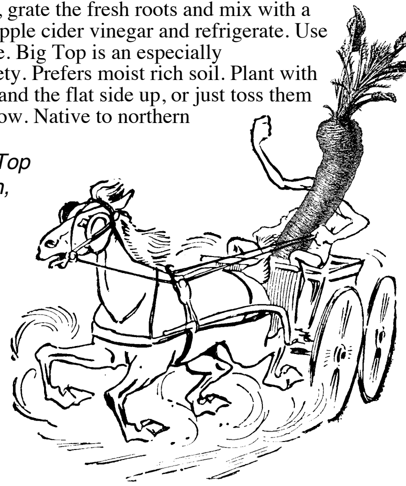


***Aristolochia durior* Dutchman's Pipe** 20-30' Also called **Pipe Vine**. Vigorous climber with large wonderful 4–10" heart-shaped dark green leaves. Once established, it will cover the porch or trellis or gazebo every summer. Beware though—one vine can peel the shingles right off the side of your house! Provides all the privacy you ever wanted even if you live right in town. Inconspicuous U-shaped tubular white and mahogany flowers in clusters of 1–3 look like "Dutchman's Pipes." Sun or shade. Thrives in shade. Likes well-drained soil with adequate moisture. Native to eastern U.S. Z4. (well-rooted transplants)

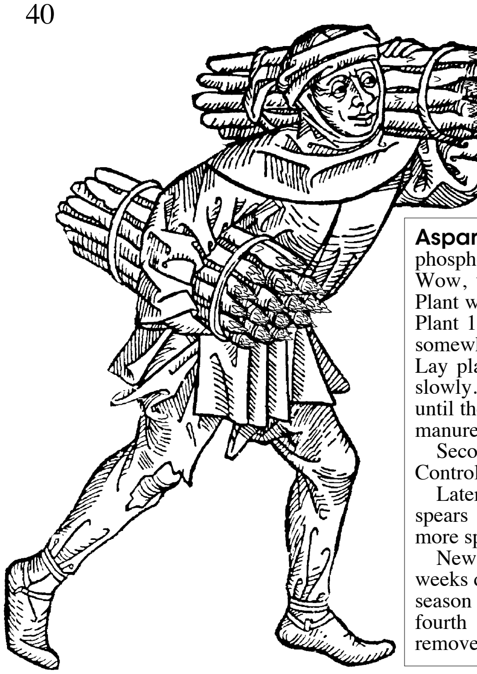
277A Dutchman's Pipe, $14.00

***Armoracia rusticana* 'Big Top' Horseradish** Exceptionally vigorous perennial with large dock-like leaves and spicy hot roots, savored for centuries for their culinary and medicinal qualities. Horseradish tea is said to be an effective control for brown rot on stone fruit. Deep taproot with numerous shallow runner roots. Choose carefully where you plant it because you may never get it all out. Even the tiniest root piece will produce a new plant. Leaves can be cooked as greens. Roots are traditionally harvested in the fall, but you can dig them anytime. Roots keep 3–4 months in the fridge. To use as a stimulant, grate the fresh roots and mix with a little lemon juice or apple cider vinegar and refrigerate. Use soon, then make more. Big Top is an especially disease-resistant variety. Prefers moist rich soil. Plant with the slanted cut down and the flat side up, or just toss them in and watch them grow. Native to northern Europe. Z3. (roots)

L278A Big Top Horseradish, bundle of 5, $15.50



ME Grown = grown in Maine by a member of the Fedco growers coop



***Asparagus officinalis* 'Jersey Supreme' Asparagus** Early. Rutgers U. A spring staple for millennia, asparagus is thought to have originated around the Mediterranean Sea, perhaps in Asia Minor. The pharaohs, Greeks and Romans were all aware of its highly nutritious qualities and delectable flavor. The earliest known American horticultural advertisement, from March 1719, is for "English Sparrow-grass Roots." Jersey Supreme, released in 2000, is an all-male hybrid which is more productive than the older all-male varieties. Occasionally females will show up in a planting. Leave them be or rogue them out as you wish. Excellent tolerance to asparagus rust and fusarium crown rot. Produces high yields of large-diameter tender spears. Z4. (large-rooted 1-yr crowns)

L282A Jersey Supreme Asparagus, bundle of 25, $20.00

***A. o.* 'Purple Passion' Asparagus** Early. Developed from the Italian heirloom *Violetto di Albenga*. Brian Benson introduction. Very large deep purple stalk with a creamy white interior. Purple asparagus are actually a type of "white" asparagus shown the light. Sweeter and less stringy than its green counterparts, so you can use more of the spear. Tender enough to eat raw in salads. Turns green when cooked. Z4. (large-rooted 1-yr crowns)

L283A Purple Passion Asparagus, bundle of 25, $20.00

Asparagus requires fertile soil with pH 6.8–7.2 and high levels of phosphorus. I recently visited friends who added Biochar to their soil. Wow, were their roots beefy! Asparagus doesn't like weed competition. Plant when you receive your order or as soon as the ground can be worked. Plant 14–18" apart, 6–10" deep, in trenches 4' apart. Or dig your trenches somewhat deeper and fill the bottom with 4" of compost and rotted manure. Lay plants with crown up and cover with 2" of soil. Plants emerge very slowly. As young shoots grow, add soil gradually, just covering the shoots, until the trench is full. In late fall, remove dead stalks and mulch with 3" of manure.

Second summer: Add lime, rock fertilizers, and nitrogen as needed. Control weeds but do not injure crowns.

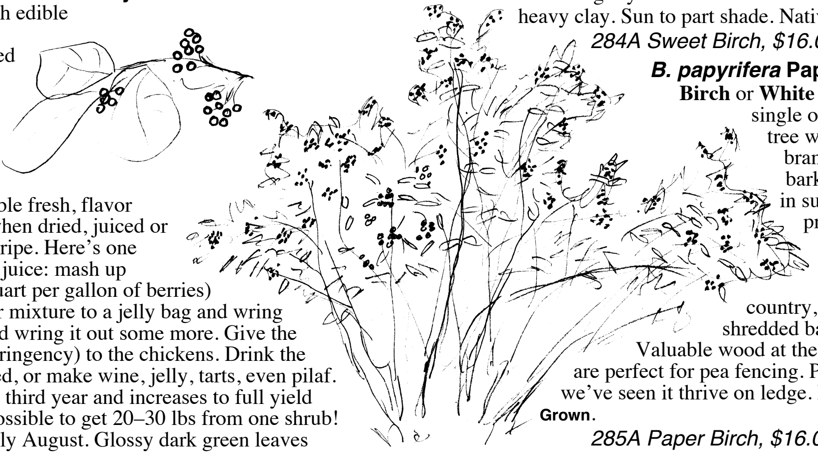
Later years: Same routine but increase fertilizer. Be sure to leave some spears each year to grow stalks that will support the roots and give you more spears next year. Keep the bed weed-free and mulched heavily.

New research shows that asparagus can be selectively harvested for 2 weeks during the second growing season, for 4 weeks in the third, and a full season thereafter. We recommend caution in harvesting. Before the third or fourth season, only the largest shoots from vigorous plants should be removed, as the young plants need to establish themselves.

***Aronia arbutifolia* 'Brilliantissima' Red Chokeberry** 6-10' x 3-5' In his book *Best of the Hardiest*, John Sabuco calls red chokeberry "one of our finest native landscape shrubs." Upright multi-stemmed form. Dense clusters of small but showy white flowers with red stamens. Dark green foliage turns a spectacular crimson in the fall. Increasingly in demand as *the* best alternative to the invasive burning bush. Birds love the abundant persistent glossy bright red fruit. While the fruit may be edible, we recommend the black chokeberry (below) for edible landscapes. Spreads by suckers. Beautiful in masses, plantings and borders. Transplants easily. Adapted to many soils, wet or dry, but prefers moist and well-drained. Sun or partial shade. Can be trained into a small tree. Native to eastern U.S. Z4. **ME Grown.**

279A Brilliantissima Red Chokeberry, $12.00

***A. melanocarpa* Black Chokeberry** Often called **Aronia**. Small rounded native shrub with edible blueberry-sized fruit and show-stopping electric-red fall foliage. Fruit commercially cultivated for its high levels of antioxidants and myriad health benefits including anti-cancer properties. Barely palatable fresh, flavor improves considerably when dried, juiced or cooked. Pick when fully ripe. Here's one method of extracting the juice: mash up berries and water (one quart per gallon of berries) but do not cook. Transfer mixture to a jelly bag and wring it out and wring it out and wring it out some more. Give the pulp (and most of the astringency) to the chickens. Drink the juice straight up or diluted, or make wine, jelly, tarts, even pilaf. Begins to bear fruit in its third year and increases to full yield around five years. It is possible to get 20–30 lbs from one shrub! Ripens in late July or early August. Glossy dark green leaves become bright red in fall. Will form colonies. Not particularly picky about where it grows. Adaptable to wet or dry areas, sun or partial shade. Free of diseases and insects. Native to eastern U.S. Self-fruitful. Z3/4.



***A. m.* 'Morton' Iroquois Beauty®** 3x5' or less. Morton Arboretum introduction, Lisle, IL. A smaller dwarfed version of the other cultivars, has a more compact habit, suitable for growing in smaller spaces. Selected in Michigan. Excellent black fruit and beautiful foliage. **ME Grown.**

280A Morton Black Chokeberry, $12.50

***A. m.* 'Viking'** 4-6' x same. Introduced in Sweden. Largest of the three selections, upright vigorous shrub produces good-tasting berries. High-yielding. **ME Grown.**

281A Viking Black Chokeberry, $12.00

***Betula lenta* Sweet Birch** 40-80' x 35-45' Also called **Black Birch** or **Cherry Birch**. Graceful horizontal branches on a medium-sized tree with a rounded irregular wide-spreading crown. Glistening smooth reddish-brown to black bark forms scaly plates on mature trees. Lustrous dark green foliage turns splendid golden-yellow in fall. The best birch to use for your birch beer, brewed from its copious sap. Once the main source of oil of wintergreen. Chew the dormant twigs, or brew a delicious tea from twigs and leaves. Also valued for its beautiful furniture wood. Pendulous 3–4" catkins dangle from the shiny bronze branches in spring. Prefers deep rich moist slightly acid well-drained soils, but adapts to most conditions except heavy clay. Sun to part shade. Native to eastern U.S. Z3. **ME Grown.**

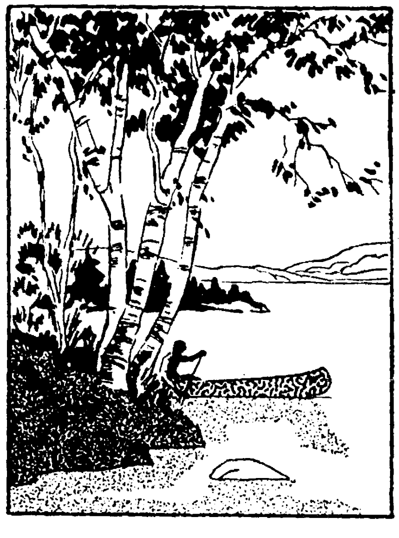
284A Sweet Birch, $16.00

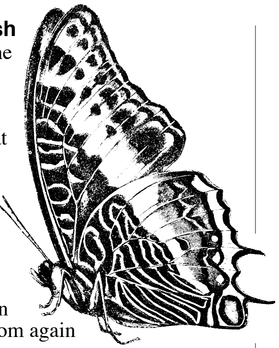
***B. papyrifera* Paper Birch** 30-70' x 30' Also called **Canoe Birch** or **White Birch**. The classic birch tree. Elegant as a single or multi-stemmed specimen, medium-sized tree with an irregular oval shape, upright angled branches and magnificent chalk-white peeling bark. Deep green foliage produces light shade in summer and turns clear yellow in fall. Birds prize the catkins, buds and seeds. Twigs are a favorite deer browse. Bark traditionally used for building canoes, containers and roofing. When traveling in the north country, Jen always keeps a small bundle of finely shredded bark in her pocket to kindle the nightly fire. Valuable wood at the sawmill. Branches, stuck into the ground, are perfect for pea fencing. Prefers moist well-drained acid soil though we've seen it thrive on ledge. Native to northern North America. Z3. **ME Grown.**

285A Paper Birch, $16.00

Plant Sizes

All of our woody plants are well-rooted bare-root plants, approximately 1–3' tall, unless otherwise noted. Some shrubs will be a bit shorter than these specs and some hardwoods will be much taller. Because of the nature of dealing with living commodities, size variations will naturally occur within each crop.

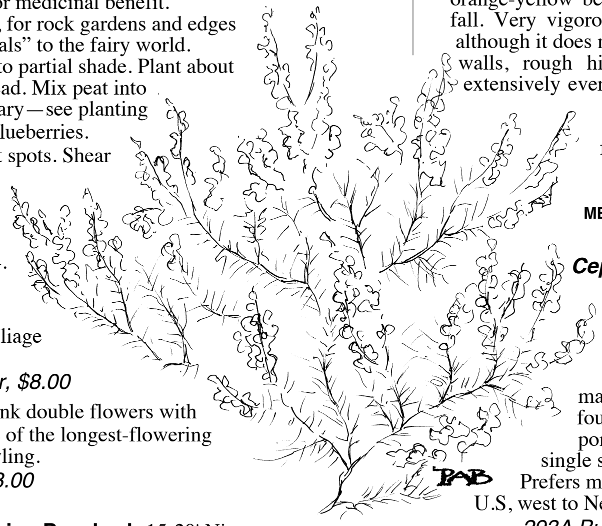




Buddleia davidii **'Pink Delight' Butterfly Bush** 5-8' Boskoop Ag. Research Center, Netherlands. The best pink-flowering butterfly bush available. Stunning arching shrub attracts butterflies, hummingbirds, bees and a long list of beneficial insects with its luscious fragrant flower panicles that reach up to one foot long. An excellent cut flower, charming in bouquets. Foliage is silvery green. Although in some states the species is considered weedy or invasive, many of the newer cultivars such as Pink Delight are sterile or have low seed germination potential. Because of tender hardiness here in northern New England, it is similar to an herbaceous perennial and can be cut to the ground in early spring—or just let it die back—and it will bloom again on new wood come June. Reblooms throughout the summer until frost if spent flowers are cut. Easy to transplant and likes to be in full-sun, well-drained soil. Native to China and Tibet. Z4. **ME Grown**.

286A Pink Delight Butterfly Bush, $14.00

Calluna vulgaris **Heather** Magical, mythical and medicinal evergreen groundcover features spread of flowers ranging from pink to purple in late summer, and colorful fall foliage. There are many different cultivars and each year we vary our selection. Revered in the British Isles, important medicinally in teas, liniments and ointments. First fermented a few thousand years ago, used in gruit, ale, and might be the original ingredient for the first whiskey. Branches used in thatching, bedding, basketry, rope-making, broom-making and even insulation. Flowers attract bees, butterflies and moths, especially when planted in masses or as low-growing hedges. Heather honey is highly prized for medicinal benefit. Recommended as a groundcover, for rock gardens and edges of paths, or for opening the "portals" to the fairy world. Requires acidic soil and full sun to partial shade. Plant about 18" apart each way and let it spread. Mix peat into the soil to lower the pH if necessary—see planting instructions for cranberries and blueberries. Does not like high fertility or wet spots. Shear every April for best bloom. Native to the dry forests, heaths and bare grounds of Britain and Ireland. More recently naturalized in North America. Z4. (4" pots)



C. v. **'Allegro'** 18-24" Bright crimson flowers on dark green foliage July–Oct. Upright and bushy.

L287A Allegro Heather, $8.00

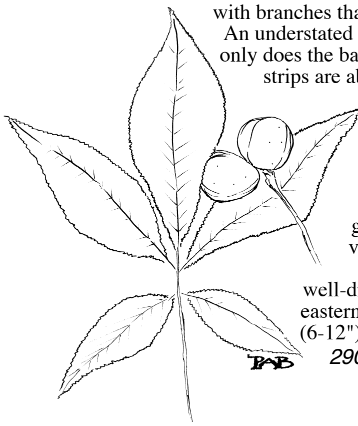
C. v. **'Tib'** 12-18" x 16" Deep pink double flowers with dark green foliage July–Oct. One of the longest-flowering heathers; low-growing and sprawling.

L288A Tib Heather, $8.00

Caragana arborescens **Siberian Peashrub** 15-20' Nitrogen-fixing cheerful bright green upright multi-stemmed oval shrub well-suited to windbreaks, hedges and borders. Delicate yellow flowers in spring are followed by small seed pods that turn a golden yellow. The pods and the small "peas" are edible. Eaten raw, they taste like garden peas, though not as sweet. Makes an acceptable chicken feed. Silvery bark and compound foliage, each with 8–12 small obovate leaflets. Easy to grow; just put them in and let them go. Adaptable to poor soils, drought, salt. Full sun. Maintenance free. Occasionally rumored to be invasive, although ours have stayed put for 20 years and not spread by seed or root. Self-fertile, native to Siberia and Manchuria. Z3. **ME Grown**.

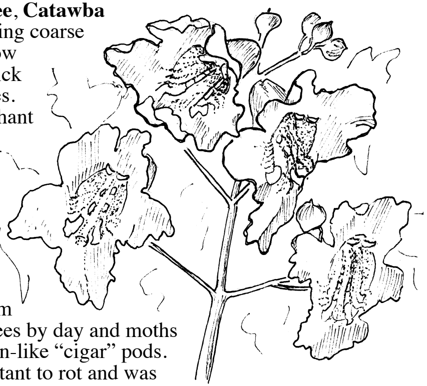
289A Siberian Peashrub, $10.50

Carya ovata **Shagbark Hickory** 60-80' or taller. One of our most beautiful native nut trees. Straight trunked and draped with branches that curve up toward the sky at the tips. An understated tree but one with great presence. Not only does the bark shag, it looks as though huge long strips are about to fall off. After the tree reaches bearing age, about 40 years, it will shower the yard with its sweet edible nuts. Those left unharvested germinate in the gardens, planted by various local creatures some four legged, some two. Rich yellow or golden fall foliage. Slow-growing but very long-lived. Tough wood used for making tool handles. Prefers rich well-drained loam, but adaptable. Native to eastern U.S. Self-pollinating. Z4. **ME Grown**. (6-12")



290A Shagbark Hickory, $16.00

Catalpa speciosa **Northern Catalpa** 40-60' Also known as **Western Catalpa**, **Elephant Ear Tree**, **Catawba** and **Cigar Tree**. Fast-growing coarse habit with a somewhat narrow open irregular crown and thick interesting undulant branches. Dense foliage of huge "elephant ear" heart-shaped leaves provides excellent shade. Covered in early summer with clusters of ruffled incredibly fragrant jasmine-scented white blossoms each dotted with purple and spotted with rich buttery-yellow radiating from the throat. Flowers attract bees by day and moths by night. Fruits are long bean-like "cigar" pods. The wood is extremely resistant to rot and was once used to make railroad ties in the Midwest. Prefers deep moist fertile soil, but thrives in almost any conditions and soils, sun or partial shade. Grows rapidly. Remains dormant late into spring. Self-fertile. Native to central U.S. Z4.



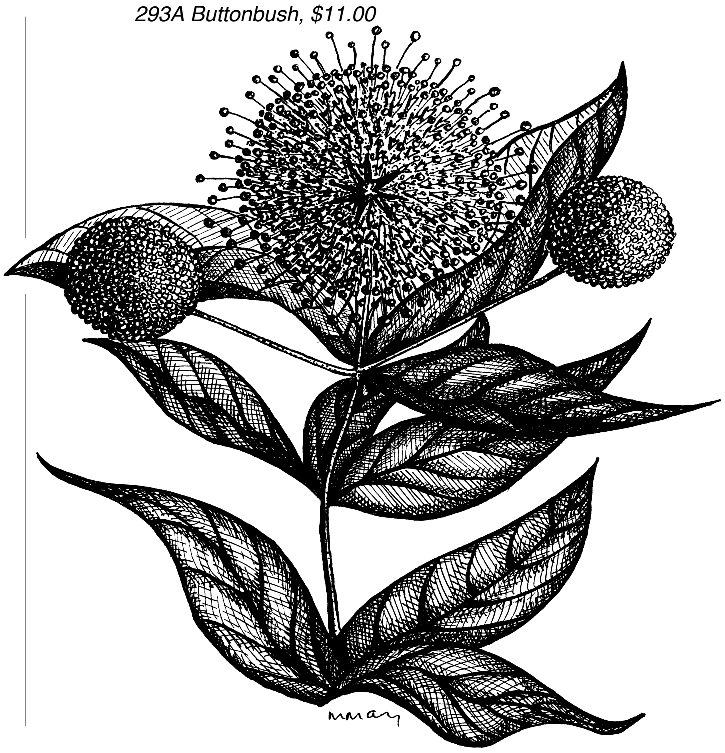
291A Northern Catalpa, $13.00

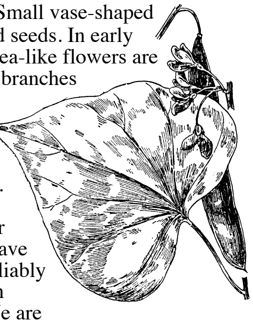
Celastrus scandens **American Bittersweet** or **False Bittersweet** 20' or more. A highly ornamental native vine used for holiday wreaths and other dried arrangements. The insignificant flower display in spring is followed by beautiful grape-like clusters of small reddish-orange to orange-yellow berries. Deep glossy summer foliage turns yellow-green in fall. Very vigorous climbing twining habit, will grow in nearly any soil although it does not like the driest sites. Suitable for covering porches, stone walls, rough hillsides, old cars and unsightly outbuildings. Prune it extensively every year to keep it from taking over. Prefers full sun. Male and female required for fruit. These are unsexed vines. Although some plants may have both male and female flowers, plant two or more plants to ensure fruit. This is *not* the invasive Asian Bittersweet, *C. orbiculatus*, which you should never grow! Native to eastern North America. Z3. **ME Grown**. (1-yr well-rooted vine)

292A American Bittersweet, $11.00

Cephalanthus occidentalis **Buttonbush** 6-10' x 8' Loose rounded branchy shrub with masses of unusual spherical fragrant white flowers that appear for 4–6 weeks in summer—a magnet for every honeybee around. These highly ornamental blooms the size of Ping-Pong balls also do well in dried flower arrangements. The seeds (nutlets) make good duck fodder in the fall. Bright green foliage. Often found in masses along the shores of New England's rivers and ponds but also suitable for the garden. Last summer I visited a single specimen in a yard nearby. It was thriving and looked great. Prefers moist soils. Recommended for naturalizing. Native to eastern U.S, west to New Mexico. Z4. **ME Grown**.

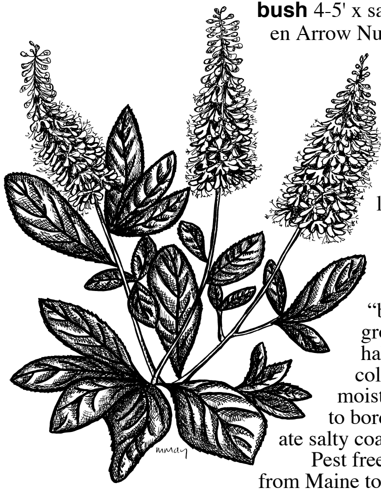
293A Buttonbush, $11.00





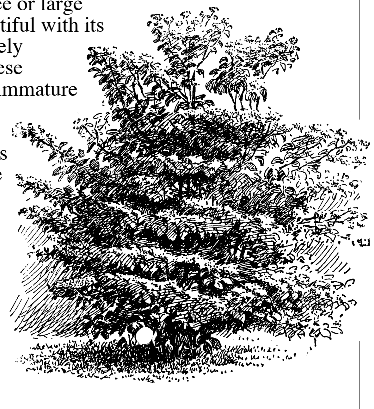
***Cercis canadensis* Redbud** 25-30' x same. Small vase-shaped tree is highly ornamental with edible flowers and seeds. In early spring, clusters of small brilliant purplish-pink pea-like flowers are so abundant they fill the entire tree; they dot the branches and even come right out of the trunk. Flowers edible raw or cooked. 2–3" flat leguminous pods with roastable edible seeds high in antioxidants. Nitrogen-fixing tree is also valuable as an early-season nectar plant for bees. Large heart-shaped leaves emerge opaque pink, mature to deep green and turn yellow in fall. Our nursery stock seeds come from Minnesota and have shown to be hardy. Customers report that it is reliably blooming in Zone 4. If you have experience with redbuds in northern areas, please let us know. We are looking for trees with ironclad bloom. We'd like to propagate using the hardiest seed. Sun or partial shade, soil adaptable. Fine as a specimen tree or in groups. May need sweating before planting to break dormancy, instructions on page 4. Native to central and eastern U.S. Z4. **ME Grown**.

294A Redbud, $16.00



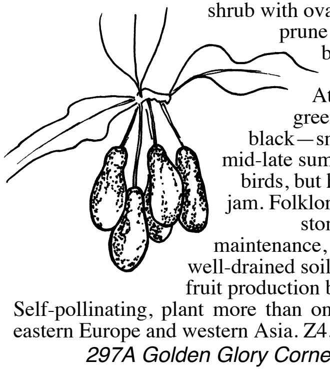
***Clethra alnifolia* 'Ruby Spice' Summersweet** or **Sweet Pepperbush** 4-5' x same. Sport of 'Pink Spires', Broken Arrow Nursery, Hamden, CT, 1992. A *New York Times* article called Clethra "a plant that sounds almost too good to be true." Red buds and beautiful spires of heavenly scented deep pink flowers appear on racemes for 6 weeks in midsummer. Bees and butterflies love it but rabbits and deer do not. Whorls of extremely attractive finely serrated distinctly veined dark green foliage turn deep gold in fall. Dangling racemes of "black pepper" persist into the next growing season. Erect rounded-oval habit, often suckering to form dense colonies. Slow growing. Prefers acid moist well-drained soils. A good shrub to border streams and ponds. Will tolerate salty coastal conditions. Full sun to shade. Pest free and easy to grow. Species native from Maine to Florida. Z3. **ME Grown**.

295A Ruby Spice Summersweet, $11.00



***Cornus alternifolia* Pagoda Dogwood** 20' x 30-35' Also known as **Alternate-Leaved Dogwood**. Small tree or large multi-stemmed shrub, particularly beautiful with its tiers of horizontal branches and extremely fragrant white 2–3" flower clusters. These appear in mid-late spring, followed by immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Roots, bark and inner bark all medicinal. Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups and often found growing with sugar maple, beech and basswood. Reddish-purple fall color. Native to eastern U.S. Z3. **ME Grown**.

296A Pagoda Dogwood, $14.00

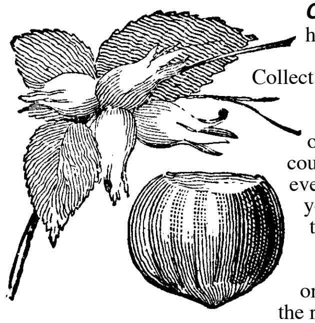


***C. mas* 'Golden Glory' Cornelian Cherry** 20-25' Large multi-stemmed shrub with oval to rounded form, or a small tree if you prune the lower branches. Covered with small bright yellow flower clusters for 3 weeks in early spring, even before forsythia. Attractive long ovate leaves are shiny rich green. Bears profusions of dark red—almost black—small oblong cherry-like edible fruit from mid-late summer into fall. Glory's fresh fruit attracts birds, but humans prefer to use them for syrup and jam. Folkloric use for skin disorders, joint pains and stomach upset. Flaky exfoliating bark. Low maintenance, disease-resistant and long-lived. Prefers well-drained soils but adaptable. Plant in the sun for best fruit production but will tolerate shade. Drought tolerant. Self-pollinating, plant more than one to ensure better fruit sets. Native to eastern Europe and western Asia. Z4.

297A Golden Glory Cornelian Cherry, $14.00

***C. sericea* 'Cardinal' Redosier Dogwood** 8-10' Minnesota Landscape Arboretum intro. Broad loosely rounded multi-stemmed shrub spreads freely by stolons (underground stems) and forms excellent hedges and borders. Cardinal is most admirable in the winter when the masses of brilliant red stems are especially beautiful against a backdrop of freshly fallen snow. Bring them inside and enjoy them in wreaths and arrangements. By June, the stems are hidden by dark green foliage and sprinkled with tiny four-petaled star-shaped flowers. 2–3" clusters of whitish berries are popular with nearly 50 bird species. One of the most valuable of our native wildlife plants. Perfect for swamps, streams and wetlands. Very adaptable to a range of soils and climates, but generally likes wet conditions. Sun or partial shade. Fast-growing and easy to transplant. To improve stem color, prune out older stems in the spring. Native to eastern U.S. Z2. **ME Grown**.

298A Cardinal Redosier Dogwood, $14.00



***Corylus* Hazelnut** Squirrels, bluejays and humans alike relish the sweet excellent nuts of this multi-stemmed rounded shrub. Collect the crop as soon as the husks begin to turn brown and lose their sticky yellowness. In central Maine that's around the third week of September. Cure nuts in their husks for a couple of weeks and then shell them. You can even stomp off the dry shells in a big tub as if you were juicing grapes, then winnow away the trash on a breezy day. Showy catkins in spring. Dark green serrated foliage in summer. A patchwork of reds, yellows, oranges and greens in autumn. Suckers from the roots. Excellent for naturalizing in thickets. Annually cutting out some suckers and/or oldest stems will keep your stand from becoming too shrubby. The main pest is plum curculio, which leaves a "hit" mark on the nut shell. (Spraying Surround may help with controlling PC.) One easy way to separate defective nuts is by floating. May be self-fruitful but some of the best nut sets we've seen were on sites with more than one shrub planted 4–6' apart. Usually bears 3–5 years after planting. Prefers well-drained soils and is pH adaptable. Full sun or light shade. Z4.

***C. americana* American Hazelnut** or **American Filbert** A native Corylus, grown in Maine from high-quality seed harvested in New Hampshire. Another local native for your landscape! Reliable fruit set of tasty 1/2" nuts. Not to be confused with our local wild Beaked Filbert, which is smaller and prickly to handle. **ME Grown**.

299A American Hazelnut, $15.00

***C.* Experimental Hybrid Hazel** Badgersett Research Farm, Canton, MN. Seedling shrubs produced from crosses of three hazelnut species: American hazelnut, *C. americana*; beaked hazelnut, *C. cornuta*; European hazelnut, *C. avellana*. The nuts from these trees will likely be larger than those from the N.H. seedlings, as they are crossed with the larger europeans. Highly resistant or immune to filbert blight. Currently we have them in a long-term trial in central Maine. So far, so good. **ME Grown**.

300A Experimental Hybrid Hazel, $15.00

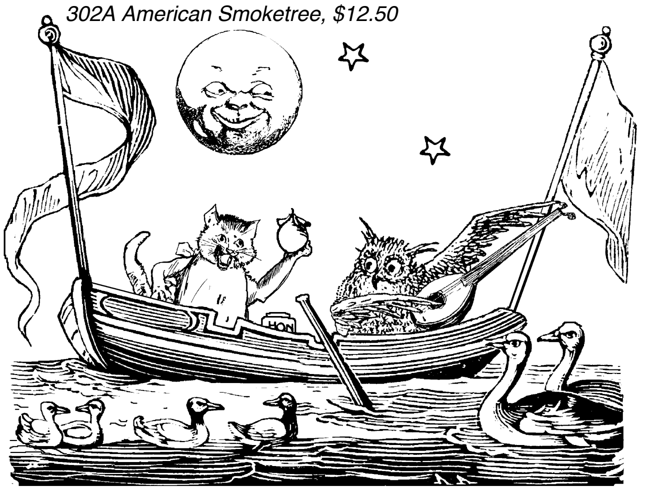
***C. avellana* 'Contorta' Harry Lauder's Walking Stick** 6-12' x 15-20' Also called **Corkscrew Hazel**. Discovered in Frocester, Gloucestershire, England, 1863. A non-fruiting (except on very rare occasions) European filbert with a dense mounded form, grown for its contorted branches, leaves and catkins. Branching begins low and curves, twists and curls from the largest branch down to the tiniest twig. Even the drooping foliage is wrinkled and curled. It's a completely wonderful sight. Highly attractive year round, but especially in winter. Also used in flower arrangements, canes, handles and ornamental woodworking. Smoky dark grey bark. Prefers well-drained loamy soil, full sun to partial shade. Remove any uncontorted root suckers that appear from below the graft. Named after Sir Henry Lauder (1870-1950), a famous Scottish entertainer who was known as Harry Lauder on stage, often seen walking with his crooked cane.

301A Harry Lauder's Walking Stick, $25.00

ME Grown = grown in Maine by a member of the Fedco growers coop

Cotinus obovatus American Smoketree 20-30' x same. Also called **Smoke Tree** and **Chittamwood**. According to Michael Dirr, this small ornamental tree "may be the best of all American shrub/trees for the intensity of color." Bears 6–10" panicles of tiny yellow-green flowers in early June. As they fade, fuzzy light pink "hairs" emerge and persist all summer, giving the tree its hazy smoky misty ethereal quality. Bluish-green oval leaves turn yellow, orange, amber, red and purple in the fall. Scaly, interesting bark. Might produce berries if more than one is planted. Finches love the seeds. Thought to be a relic tree from 25 million years ago, it almost went extinct during the mid-nineteenth century when the wood was over-harvested for fence posts, tool handles and orange fabric dye. Allow to grow several trunks or prune to a single specimen. Tolerates most soils but prefers well-drained infertile ground. Full sun to partial shade. Native to North America. Not to be confused with *C. coggygria*, Smokebush. Z4. **ME Grown**.

302A American Smoketree, $12.50



Cydonia oblonga Quince 10-25' A small tree with large aromatic tan or yellowish fruit, up to a pound and a half, shaped like a cross between a pear and an apple. Usually eaten in stews, marmalades and jellies. Sometimes added to hard cider. At one time, every Maine dooryard had a quince. Cultivated for millenia but lost favor in more recent times, the "golden apple" has quite the history: in ancient times, a gift to Greek brides on their wedding day; in colonial American homesteads, a staple pectin fruit; in Mother Goose, the Owl and the Pussycat's picnic treat; in the Bible, maybe even the *real* forbidden fruit. Large white to pink flowers. Wood of mature trees becomes impressively gnarled and twisted. Self-fruitful but planting more than one will give better yields. Similar soil requirements to other fruit trees. Plant in full sun and space 16' apart. Prune like an apple tree. Needs protection from apple borers. Susceptible to fire blight. Fruit may not ripen in coldest areas. We're currently looking for local specimens that might be brought back into cultivation. If you know of any, please let us know! Native to Western Asia. Not be be confused with Flowering Quince, the ornamental shrub *Chaenomeles*, which has smaller fruit. Z4/5. (3-6')

***C. o.* 'Orange'** Also known as **Apple Quince**. Medium-large rounded bright yellow fruit with smooth skin. Orangish-yellow flesh. An old culinary favorite that ripens early.

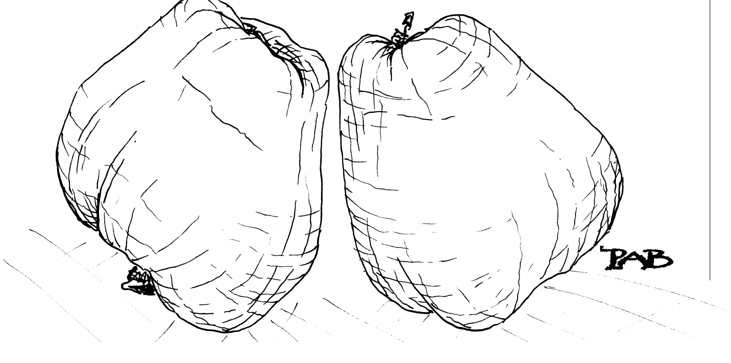
303A Orange Quince, $24.00

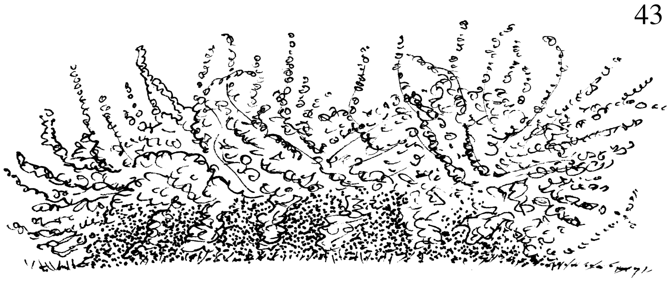
***C. o.* 'Pineapple'** Named by Luther Burbank for pineapple-like flavor when made into jelly. Large smooth light golden-yellow fruit with tart white flesh. Good for fresh eating, jelly or winemaking. Late bloomer ripens in late summer.

304A Pineapple Quince, $24.00

***C. o.* 'Smyrna'** Brought from Smyrna, Turkey, by Californian GC Roeding, whose father Fred brought the famous Smyrna fig to the U.S. Oblong furrowed pear-shaped fruit with golden-yellow skin and mild light yellow flesh. Pink flowers. Good keeper. Ripens late summer to early fall.

305A Smyrna Quince, $24.00



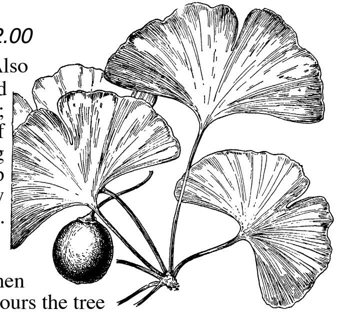


***Forsythia ovata* x *F. europaea* 'Meadowlark' Forsythia** 6-11' x same. North Dakota St U, 1986. Welcoming everyone to spring, from Mile One on the Maine Turnpike to the potato prairies of The County, forsythia means the end of another long winter and the birth of color. Meadowlark is one of the most reliably flowering, with bud hardiness to –35°. Semi-arching habit and showy bright yellow blooms. Cut the branches in the earliest part of spring before they have flowered and put them in a vase of water and soon you'll have the first bouquet of the year. Don't be fooled by non-hardy imitations at the Big Box. If you want blooms above the snow line, shop at Fedco! Prefers moderately fertile, slightly acid to neutral soils with good drainage. Best in full sun. Native to China. Z3.

306A Meadowlark Forsythia, $13.00

***Fothergilla gardenii* Dwarf Fothergilla** or **Witch Alder** 2-3' x same. Small rounded deciduous flowering shrub with electric fall foliage. Unique creamy-white honey-scented bottlebrush-shaped 1–2" flowers in early spring, usually before the leaves appear. A surprise in late April or early May, these fuzzy soft-looking fragrant blooms embellish the plant when little else is flowering. Attractive dark green to blue-green leathery leaves turn brilliant yellow, orange and scarlet, often on the same leaf, in fall. Slender crooked branches become dense with maturity. Easy to grow, requires practically no maintenance. Prefers moist well-drained peaty acidic soil in sun or partial shade. Disease and pest-free. Native to southeastern U.S. Z5. **ME Grown**.

307A Dwarf Fothergilla, $12.00



***Ginkgo biloba* Ginkgo** 50-80' Also called **Maidenhair Tree**. Considered the oldest living genus of seed plants; grew in North America in the time of the dinosaurs. Upright tree when young with branches that spike out and up like the rays of the sun, eventually becoming wide-spreading and graceful. Slow-growing, can be extremely long-lived. Unique fan-shaped foliage turns sparkling golden-yellow in fall, then all at once the leaves drop and within hours the tree is bare. Famous for their edible seeds and the infamous stinky fruit that encloses them. The flesh will actually rot off all on its own, leaving clean edible nuts with no bad smell. The softish nuts can be used in stir-fries. Leaf tea used to enhance circulation to the brain and extremities. Tolerates smoke, dust, wind, ice, insects, disease, salt. Prefers slightly acid well-drained soil but is very adaptable. Minimal maintenance requirements, nearly indestructible, an excellent city tree. There are 3000-year-old specimens in China. Male and female tree required for fruit. These are unsexed seedlings. Plant two or more for fruit. Native to southeastern China. Z3.

308A Ginkgo, 1 for $15.00

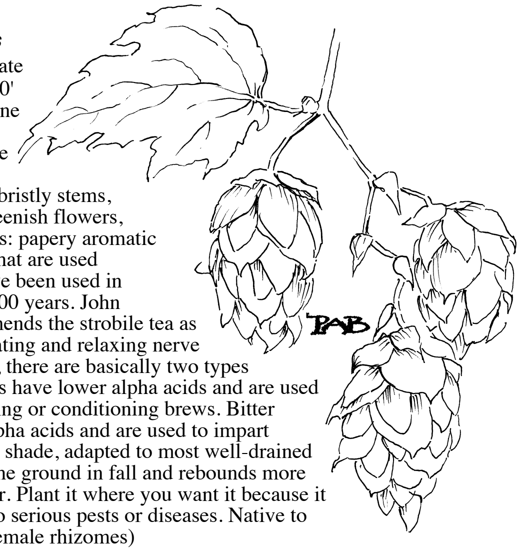
308B Ginkgo, bundle of 5, $67.00

***Hamamelis virginiana* Witch Hazel** 20-30' A small irregular rounded fall-flowering medicinal tree or large shrub. Makes a soothing astringent with a seemingly endless number of uses from controlling acne to soothing diaper rash, baggy eyes (yes!), poison ivy, chicken pox, even an unhappy lovelife. T.N. Dickinson's Witch Hazel Astringent is still available in your local drug store. Most preparations involve simply brewing tea from the leaves and/or twigs. Oval hazel-like foliage. Brilliant golden-yellow fall color. Quirky yellow flowers appear in early to mid November. "Witch" is said to refer to the odd flowering time or maybe it's because dowsers like to use the interesting forked branches to "witch" for water. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases, does well with very little care. We do nothing to ours and it looks better and better every year. Native Canada to Georgia. Z3.

309A Witch Hazel, $15.50

***Hibiscus syriacus* 'Aphrodite'** 8-12' x 6-10' **Rose of Sharon** cultivar. Rugged upright shrub with large saucer-shaped dark pink single flowers—each with a prominent red eye—that bloom from midsummer until frost. Flowers are reminiscent of those seen growing in the tropics. Glossy dark green foliage. Beautiful as a specimen, in groups and in hedges. The genus has a long history of medicinal, edible and ornamental use. Easy to grow. Soil adaptable but prefers moist and well drained, slightly acidic to slightly alkaline. Considered a Zone 5 plant, though flowers bloom on new growth so some dieback is acceptable. Prune young plants back to 2 or 3 buds. Thereafter, no major pruning is necessary except to remove oldest wood or to maintain at a specific size. Full sun to partial shade. Native to Asia, introduced to Europe by 1600. Z5.

310A Aphrodite Hibiscus, $13.00



Humulus lupulus
Common Hops Late summer. Up to 20-30' Beautiful twining vine covers a trellis, an archway or the entire side of a barn with green lobed leaves, bristly stems, and insignificant greenish flowers, followed by the hops: papery aromatic cone-like strobiles that are used medicinally and have been used in brewing for over 1000 years. John Christopher recommends the strobile tea as "a powerful, stimulating and relaxing nerve tonic." For brewing, there are basically two types of hops. Aroma hops have lower alpha acids and are used for flavoring, finishing or conditioning brews. Bitter hops have higher alpha acids and are used to impart bitterness. Tolerates shade, adapted to most well-drained soils. Dies back to the ground in fall and rebounds more vigorously each year. Plant it where you want it because it really takes over. No serious pests or diseases. Native to Eurasia. Z3. (4-6" female rhizomes)

***H. l.* Cascade** USDA 19124 [(Fuggle x Serebrianka-Fuggle S) x open-pollinated] Oregon St U, 1972. Fragrantly aromatic hop, low bittering value. Very productive with large cones, ready to harvest mid-late August in central Maine. A customer wrote, "Cascade has gained impeccable renown as *the* charismatic hop in such unsurpassable ales as Anchor's Liberty Ale, Sierra Nevada's Pale Ale and McNeill's Firehouse Amber Ale. Nothing 'light' about these." Resistant to downy mildew.

L311A Cascade Hops, bundle of 3, $17.00

***H. l.* Chinook** (Petham Golding x select US male) USDA, 1985. Mid-late season. A dual-purpose high-alpha hop which has been used commercially in pale ales, IPAs, seasonal ales, porter and stout. Spicy aroma has some piny and herbal undertones. Medium-compact cones have good storage stability. Disease and insect resistant.

L312A Chinook Hops, bundle of 3, $17.00

***H. l.* Nugget** (USDA 65009 x USDA 63015M) which is 5/8 Brewers Gold, 1/8 Early Green, 1/16 Canterbury Golding, 1/32 Bavarian and 5/32 unknown. Corvallis, OR, 1970. High-yielding high-alpha bittering hops for medium to dark ales and lagers. Very popular in IPA. Heavy spicy herbal aroma. Compact cones ripen midseason, late August to early September in central Maine, about two weeks after Cascade. Resistant to downy mildew and verticillium wilt.

L313A Nugget Hops, bundle of 3, $17.00

***H. l.* Willamette** (USDA 21003 x Fuggle Seedling 2-4) USDA, 1976. Excellent all-purpose hop. Old English-style aroma with brewing characteristics similar to Fuggle. Low bittering. Spicy aroma. Good finishing hop for brewing English ales and stout. Vigorous. Higher yielding than Fuggle. Ripens midseason (late summer) and has good disease resistance.

L314A Willamette Hops, bundle of 3, $17.00

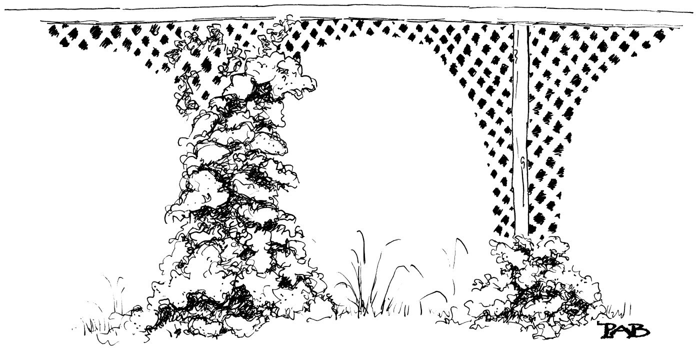
Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting. Hops prefer full sun and light-textured rich well-drained soil, with a pH of 6.5–8.0. As soon as soil can be worked in spring, till to create a weed-free area. Dig holes about 1' deep and at least 3' apart in rows. Add manure, compost and other slow-release organic fertilizers. Plant 2 rhizomes per hole, horizontally with the buds pointed up and cover with 1–2" of loose soil. The first year the hop plant requires frequent light watering and mulching.

Hops grow vertically, with lateral sidearms extending from the main vine and producing cones. Vines may grow up to 25' in a single season, and do best if they are trained onto strong twine 12–30' high, supported by a trellis, wire, pole, tree branch or south-facing building. When the young vines are about 1' long, select the 2 or 3 most vigorous vines per hill and remove the rest. Gently wrap the vines clockwise onto a string. Once trained, the vine will guide itself.

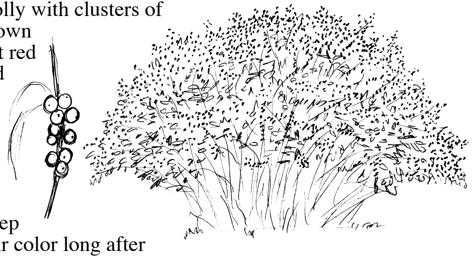
Pick the hops when they are papery but still slightly sticky and filled with yellow powder. Harvest dates will vary with the variety and climate. Because most hops are produced out of reach from the ground, it is safest to lower the vines in order to pick the hops. Dry hops thoroughly before use. Placed on a window screen in a dry attic, they will dry in a few weeks. Dried hops freeze well.

Cut the vines back to the ground after they have been killed by frost. Each spring apply a hearty topdressing of manure and compost. To help control vigor, prune roots by cutting a 2–3' circle with a shovel around the base of the plant in spring.



***Hydrangea petiolaris* Climbing Hydrangea** Up to 50' or more. Amazing graceful climbing and twining woody vine will add dimension and vertical space to any garden. Even those who "hate" hydrangeas love this one! In early summer, flat umbels of fragrant ivory flowers bloom in profusion. Dark green glossy foliage extends from the vine, giving a full shrubby appearance. This fantastic ornamental is often slow-growing at first, but well worth the wait. Within a few years, it will cling and climb over brick, stone, tree or trellis. Early training by pinning up vines in the direction desired will help establish its form and habit. Then prune as desired. Bright yellow fall color. Attractive exfoliating winter bark. Adaptable to most soil types and grows well in everything from full sun to full shade. Native to Japan and China. Z5. (well-rooted vines)

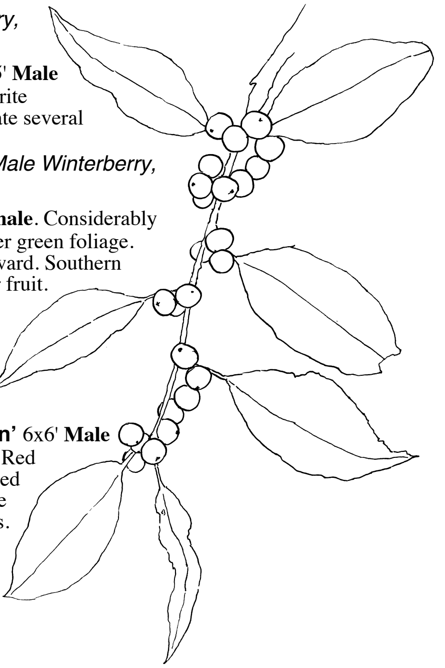
315A Climbing Hydrangea, $16.50



***Ilex verticillata* Winterberry** Also called **Black Alder**, **Fever Bush**, **Possumhaw**, **Swamp Holly** and more. Deciduous suckering medicinal holly with clusters of upright stems. Best known for profusions of bright red 3/8" berries which stand out after the leaves fall—they keep their color all winter, looking spectacular against the snow. A staple of the Maine landscape. Lustrous deep green leaves retain their color long after they're cut for decoration. Richly foliated, but open enough to display its interesting branching structure. Excellent fall wildlife forage plant. Leaves used for tea and tonic, astringent bark used in herbal medicine. Tolerates dry conditions but prefers moist or wet acidic soil, even standing water. Sun or partial shade. No serious pests or diseases. Male and female plants required for fruit, which is produced on female plants. Plant males within 30' of females. Native from midwestern to eastern U.S. Z4. (9-12" transplants)

***I. v.* 'Red Sprite'** 3-5' x 4-8' **Female**. USDA introduction. Smaller plant than the straight species with an attractive low loose rounded form. Winner of the 1998 Cary Award for Distinctive Plants for New England. Jim Dandy male required for fruit. **ME Grown**.

316A Red Sprite
Female Winterberry,
$14.00



***I. v.* 'Jim Dandy'** 3-6' x 4-5' **Male** selection to pollinate Red Sprite winterberry. One will pollinate several females. **ME Grown**.

317A Jim Dandy Male Winterberry,
$14.00

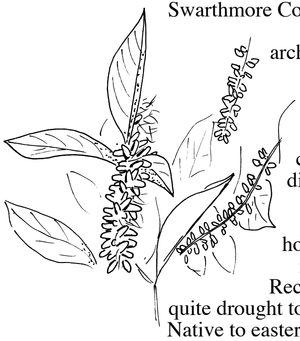
***I. v.* 'Winter Red'** 9x8' **Female**. Considerably larger than Red Sprite. Darker green foliage. Winner of the 1995 Styer Award. Southern Gentleman male required for fruit. **ME Grown**.

318A Winter Red
Female
Winterberry,
$14.00

***I. v.* 'Southern Gentleman'** 6x6' **Male** selection to pollinate Winter Red winterberry. Don't be deceived by the name—it's hardy. One will pollinate several females. **ME Grown**.

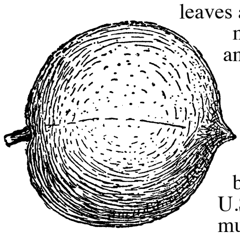
319A Southern
Gentleman
Male Winterberry,
$14.00

Itea virginica 'Henry's Garnet' Virginia Sweetspire 3-5' x 5-6' Swarthmore College, PA. Award-winning spreading shrub with an erect clustered branching habit and arching shoots. Fragrant white flowers in early summer on upright racemes up to 6" long attract a variety of pollinators. Bright green foliage, brilliant reddish-purple fall color. Will form colonies. Its name commemorates Mary Henry (1884-1967), a distinguished American botanist and pioneer plant explorer. She traveled the North American continent—sometimes on horseback—seeking and collecting seeds and material from interesting native specimens. Recommended for moist or wet areas although quite drought tolerant as well. Sun or shade, pH adaptable. Native to eastern U.S. Z4. **ME Grown**.



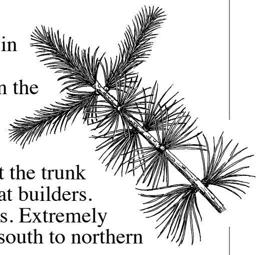
320A Henry's Garnet Sweetspire, $14.00

Juglans nigra Black Walnut 70-90' A spectacular shade tree with a magnificent open rounded crown of massive limbs with dark green leaves. Highly valued cabinet and veneer wood. Thick-shelled edible nuts have an intense distinctive flavor that some people dislike but others love. Husks, leaves and roots all have anti-fungal properties. Tincture made from the green husks is both anti-fungal and antiseptic. Husks also yield a rich brown dye. Deep taproot. Prefers moist well-drained soils, pH 6–7. Roots give off a compound called juglone which inhibits competing plants, so don't plant one too close to your garden. Space trees about 50' apart for nut production, 20' apart for lumber. May begin to bear fruit in 5–10 years. Native to eastern U.S. though not quite into Maine. Some sources say multiple trees needed for pollination but we've seen enough solo trees with large nut crops to say that you only need one. Grown from seed collected in Maine and New Hampshire! Z4. **ME Grown**.



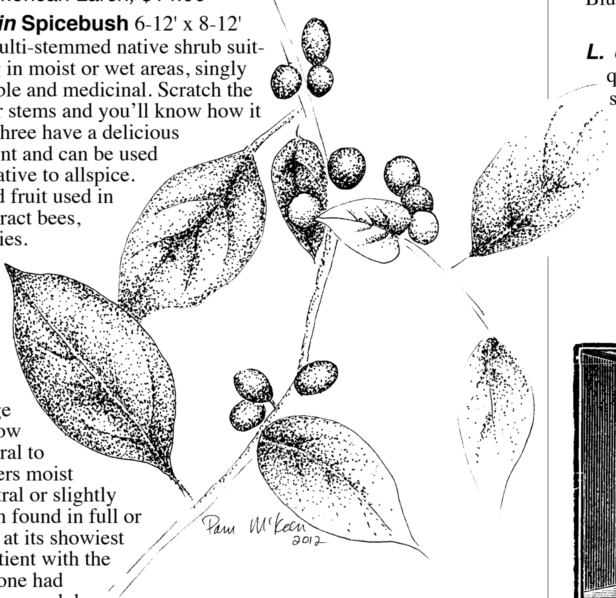
321A Black Walnut, $16.00

Larix laricina American Larch 40-80' x 15-30' Usually called **Tamarack**, **Hackmatack** or just **Hack** in Maine. Pyramidal deciduous conifer with grey-green foliage that turns soft golden-orange before dropping in the fall—our only conifer that loses its needles in winter. Beautiful as a specimen or in a stand. Strongly horizontal branching habit. Incredibly tough wood used for barn floors. Curved "knees," where roots meet the trunk at 90 degrees, traditionally were sought by wooden-boat builders. Commonly grows in bogs and prefers moist acidic soils. Extremely hardy and fast growing. Native from the Arctic Circle south to northern Pennsylvania. Not recommended in warmer areas. Z1.



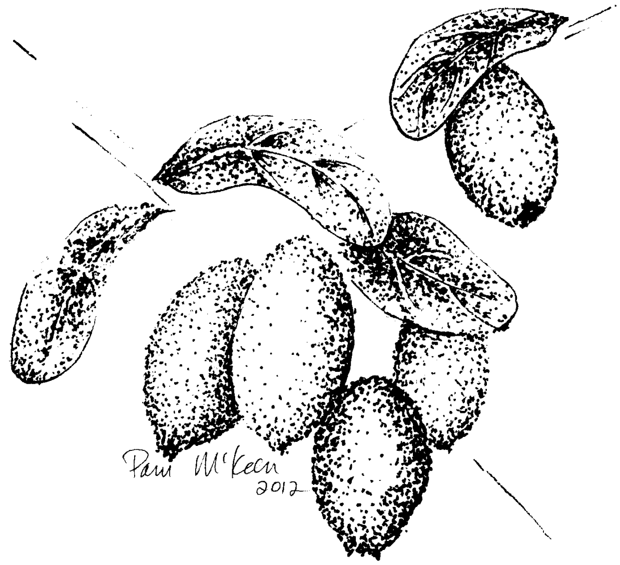
322A American Larch, $14.00

Lindera benzoin Spicebush 6-12' x 8-12' Large rounded multi-stemmed native shrub suited to naturalizing in moist or wet areas, singly or in groups. Edible and medicinal. Scratch the berries, foliage or stems and you'll know how it got its name: all three have a delicious lemony-spicy scent and can be used as a native alternative to allspice. Leaves, twigs and fruit used in teas. Will also attract bees, birds and butterflies. Soft-yellow flowers early in spring followed by small clusters of glossy red berries by mid to late summer. Blue-green foliage turns golden yellow in fall. Plant several to ensure fruit. Prefers moist well-drained neutral or slightly acidic soils. Often found in full or partial shade, but at its showiest in full sun. Be patient with the plants. I thought one had died a few years ago and dug it up, only to find that it was alive and well, ready to go. These are unsexed seedlings: male and female plants required for fruit. Native to eastern U.S. Z4. **ME Grown**.



323A Spicebush, 1 for $14.00
323B Spicebush, bundle of 5, $63.00

ME Grown = grown in Maine by a member of the Fedco growers coop



Lonicera caerulea Honeyberry Also called **Haskap** or **Edible Honeysuckle**. Extremely hardy, medium-sized fruiting shrub. Somewhat similar in bush and fruit to our native highbush blueberry. Small oval fruit is dark blue, tart and very high in antioxidants. In the Japanese Ainu language, *haskap* means 'lots of little things on top of the branches.' Productive plants bear at a young age with proper pollination. Ten pounds of fruit per plant is possible after a few years. Years ago we tried honeyberries on our farm. We never got much fruit and gave up on them. That may have been because early plant material was from Russia and flowered too early for our northern New England climate. Recently developed varieties use Japanese material which seems to have better success fruiting here in the States. We've got all three of these varieties in our trials now in central Maine and are pleased so far. Will do well in most soils and in a wide range of soil pH (5.0–8.5). Extremely hardy. Z2. (9-12" transplants)

L. c. ar. **kamtschatica 'Berry Blue'** 8x8' Recommended pollinator for Borealis and Tundra honeyberries. One Berry Blue will pollinate about 8 others. Small tart berries may need sweetening depending on your tastes.

324A Berry Blue Honeyberry, $18.00

L. c. 'Borealis' 4-6' x same. U of Saskatchewan 2007 intro. The best-tasting and largest fruit in the Saskatchewan breeding program. Delicate fruit, not as firm as Tundra. Recommended for home gardeners. Needs Berry Blue as a pollinator.

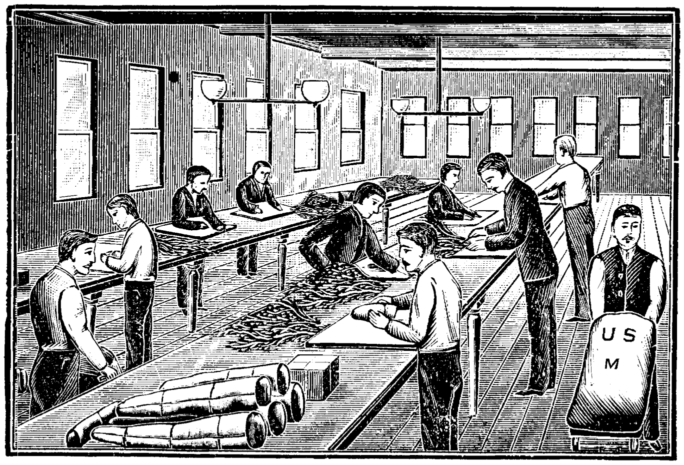
325A Borealis Honeyberry, $18.00

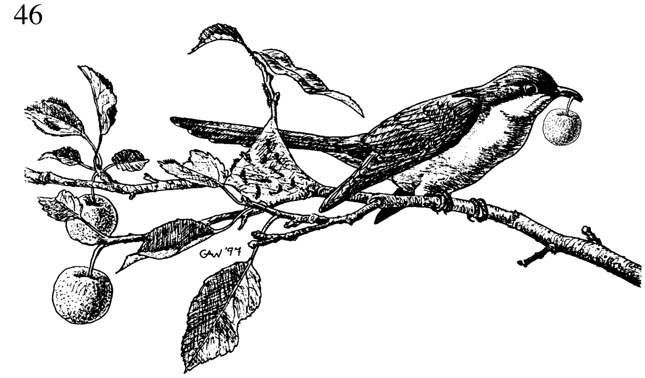
L. c. 'Tundra' 4-6' x same. U of Saskatchewan 2007 intro. Large high-quality fruit is tangy and sweet, shaped in a long flat oval. Firmer and somewhat sweeter than Borealis. Needs Berry Blue as a pollinator.

326A Tundra Honeyberry, $18.00

Plant Sizes

All of our woody plants are well-rooted bare-root plants, approximately 1–3' tall, unless otherwise noted. Some shrubs will be a bit shorter than these specs and some hardwoods will be much taller. Because of the nature of dealing with living commodities, size variations will naturally occur within each crop.





Malus Flowering and Culinary Crabapples

A crabapple is an apple with fruit smaller than 2" in diameter. Of the 40 plus recognized species of apples, most are considered to be crabs. Every year we vary our offering to provide an ever-expanding assortment of the best culinary and ornamental varieties. We usually include a couple of tried-and-true standards in the trade. However we mostly offer lesser-known varieties including some that are extremely rare. We're always on the lookout for crabs with four-season interest: magnificent spring blooms, clean scab-free summer foliage, showy fall and winter fruit, and interesting shapes and branching habits year-round. We always limit pruning our crabs to a touch-up here and there, allowing each to express its unique identity. Most crabapples bloom annually in May just before the lilacs and make excellent pollinators for any apple.

Every year bird enthusiasts ask us for more **persistent** crabs: those with fruit that persists on the tree well into winter or even spring. These crabs provide high-quality forage for birds when there's not much around for them to eat. You never forget seeing a flock of waxwings descend upon one of your trees, stripping it clean while the snow is still covering the yard. This year we're featuring some of the best of the persistent varieties. More will come in future catalogs. If you have particular favorites, let us know. We'll track them down and offer them sometime soon.

The best crab collection in New England is at the Arnold Arboretum in Boston. The best book is John Fiala's definitive text, *Flowering Crabapples: The Genus Malus*. (3-6' trees)

Adams 20x20' Chance seedling named for Walter Adams, president of Adams Nursery in Westfield, MA, 1947. Adams is one of the older persistent varieties that no ornithologist should be without. Deep pink buds and deep clear red-pink single flowers. The birds will love the abundant $^5/_8$" dark red persistent fruit. Rounded tree form with reddish-tinged leaves. Orange-red fall foliage. Excellent disease resistance. Z4.

327A Adams Crabapple, $25.00

Adirondack 18x10' *M. halliana* 'Koehne' x open pollinated. Donald Egolf selection. National Arboretum No. 54943, Washington, DC, 1987. Another excellent crab for persistent fruit and disease resistance. Very distinctive form: narrow upright and vase-shaped. Red buds open to red-tinged white textured single blooms. The overall effect is faint pink. Bright orange-red $^1/_2$" persistent fruit. Medium green foliage. Excellent all-around disease resistance. Gold Medal Plant Award winner in 2002. Z4.

328A Adirondack Crabapple, $25.00

Dolgo 25x30' From seed collected by NE Hansen of *M.* x *robusta* in 1897 at the Imperial Botanical Gardens, St. Petersburg, Russia. (*Dolgo* means 'long' in Russian.) Introduced in the U.S. in 1917. *The* classic culinary crab still found in old Maine backyards. Apricot-pink buds, large fragrant 2" pure white single flowers bloom early. Beautiful purple-red 1$^1/_2$" teardrop-shaped fruit makes flavorful clear ruby-red jelly. In recent years the aromatic very sweet, very acidic fruit has found favor with hard cider makers. Also useful for canning, pickling and delicious sauce. One individual posted on the NAFEX chat group, "The apple sauce is spectacular, and sweet enough to enjoy without sugar." Vigorous large blocky upright spreading tree consistently yields abundant summer crops. Dependable pollinator for all apples. Very hardy. Z2.

329A Dolgo Crabapple, $25.00

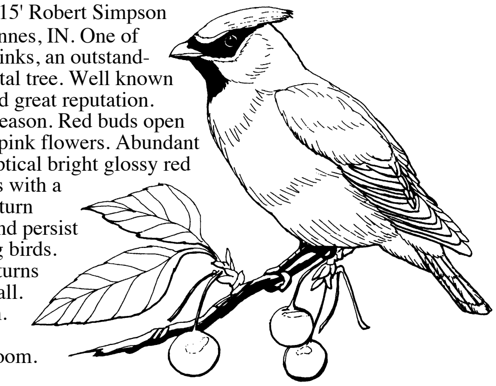
Donald Wyman 20x30' Chance seedling. Arnold Arboretum, 1970. If I could plant only one ornamental crab, I would plant a Donald Wyman. Deep pink buds and large 2" single white flowers early in the season. The bloom is so intense, the tree looks like one massive flower. Beautiful rounded wide-spreading medium-sized tree with attractive glossy green foliage. Looks great when it has room to spread out. The shape alone is enough to recommend this cultivar. The bright $^3/_8$" red oval fruit completely covers the tree in clusters and persists until spring when the birds clean it off in time for the next bloom. 2001 winner of the Carey Award for Distinctive Plants for New England. Named in honor of America's great horticulturist. Disease-free, although said to be slightly susceptible to powdery mildew. Z4. **ME Grown**.

330A Donald Wyman Crabapple, $25.00

Hansen's Red Flesh 10x8' *M. pumila* 'Niedzwetzkyana' x *M. coronaria* 'Elk River'. Niels Hansen intro, Brookings, SD, 1928. Also called **Red Flesh**. Extremely hardy culinary crab. The red-fleshed fruit is small for an apple, but large for a crab. Makes very tasty jelly and "a pretty candied crab apple." Also recommended for sauce and cider. Very showy pink flowers. Good disease resistance. Extremely hardy (–40°) small-statured tree. Z3. **ME Grown**.

331A Hansen's Red Flesh Crabapple, $25.00

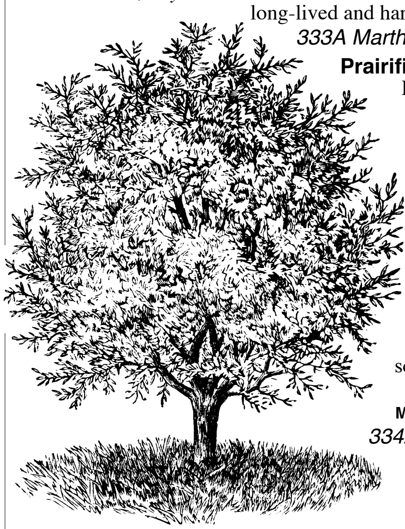
Indian Magic 15x15' Robert Simpson introduction, Vincennes, IN. One of the best of the the pinks, an outstanding showy ornamental tree. Well known with a well-deserved great reputation. Beautiful in every season. Red buds open to single deep rose-pink flowers. Abundant attractive small elliptical bright glossy red long-stemmed fruits with a slight orange blush turn orange in late fall and persist all winter, attracting birds. Dark green foliage turns brilliant orange in fall. Rounded open form. Rarely affected by scab. Midseason bloom. Z4. **ME Grown**.



332A Indian Magic Crabapple, $25.00

Martha 20x20' *M. baccata* seedling. Peter Gideon intro, Excelsior, MN, c. 1839. Large-fruited crab for eating and cooking. Bright rosy-red striped fruit. Yellowish flesh is coarse, crisp, juicy and quite delicious. Highly recommended for fresh eating as well as for jellies, jams and other cooking enterprises. Jason Davis of Cayford Orchards in Skowhegan, ME, introduced me to the old tree during a visit a few years ago. The crab had been part of his family's orchard for generations; no one knew the name. I was immediately struck by its beauty and its taste. Later I was able to label it: Martha, *my dear*. Medium-sized and annually bearing, extremely long-lived and hardy. Z3. **ME Grown**.

333A Martha Crabapple, $25.00



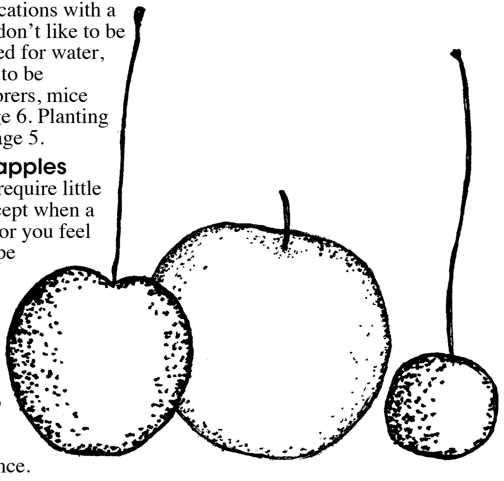
Prairifire 20x20' *M. hupehensis* seedling. DF Dayton intro, Dept of Horticulture, U of IL, Urbana, 1982. Iowa Tree of the Year in 1996. The reddest flowering crab. Red buds, large single rose-pink flowers and $^1/_2$" persistent red fruits that do not drop. The foliage matures from red-maroon to deep green over the season. One customer wrote us calling Prairifire "the prettiest thing you've ever seen." Upright spreading rounded tree. Rarely shows any problems from scab or other diseases. Excellent for wildlife and a beautiful tree. Z4. **ME Grown**.

334A Prairifire Crabapple, $25.00

Crabapples are really just apples in disguise. They prefer full sun and deep well-drained soils of 5.5–6.5 pH but they are quite forgiving and will thrive in many locations with a little TLC. They don't like to be drowned or starved for water, and they do need to be protected from borers, mice and deer. See page 6. Planting instructions on page 5.

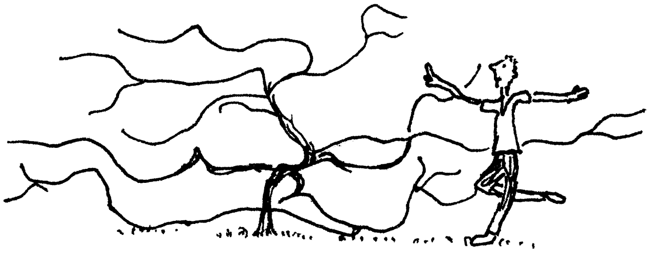
Pruning Crabapples

Most crabapples require little or no pruning except when a branch is broken or you feel compelled to shape your tree in one way or another. Allow each tree to assume its own unique form. Weeping crabs however do require pruning and training: see sidebar for guidance.



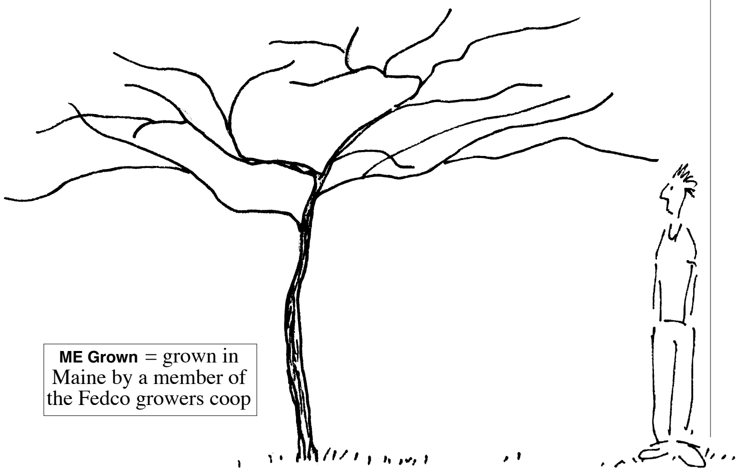
Sargent 8x15' (*M. sargentii*) Arnold Arboretum, 1892. CS Sargent, one of America's most famous horticulturists, originally brought it the U.S. from Japan. The smallest crab species, densely and horizontally branched from the base with no tendency to develop a central leader. The branches curve and twist and turn like a large pretzel. Pink buds and profuse pure-white fragrant single flowers seem to bloom forever. Birds are crazy about its mass of very small dark red-purple persistent fruit. Plant this crab by your winter birdwatching window. Often propagated by seed, so many strains exist. Dark green foliage. Disease resistant. Z4. **ME Grown**.

335A Sargent Crabapple, $25.00



Semi-weeping Red 10-12' x 20' Unknown parentage and origin. Doesn't weep but rather it snakes and crawls and reaches out across the yard, the undulating branches barely rising above a horizontal plane. Just as beautiful in January as in June. Deep rich glowing red foliage. Dark red buds dangle in clusters below the leaves like the decorative fringe on the rim of a holiday sombrero. Difficult to distinguish the flowers from the foliage but that has never bothered us. Roger Luce discovered it many years ago in a nursery near Bath, ME. Unfortunately he lost the tag. He just called it "Semi-weeping Red". Small insignificant red fruit. **ME Grown**. Z4.

336A Semi-weeping Red Crabapple, $25.00



ME Grown = grown in Maine by a member of the Fedco growers coop

Sugar Tyme 18x15' *M.* 'Sutyzam' (Milton Baron No. 1) PP 7062. Lake County Nursery introduction, Perry, OH. One of the newer patented varieties that is worth planting in any yard. Upright spreading roundish oval form. Pale pink buds and very showy single white fragrant flowers that cover the tree. 1/2" red persistent fruit hangs until March. Green foliage. A very beautiful tree. Excellent disease resistance. 1999 Michigan Growers' Choice Award winner. Z4.

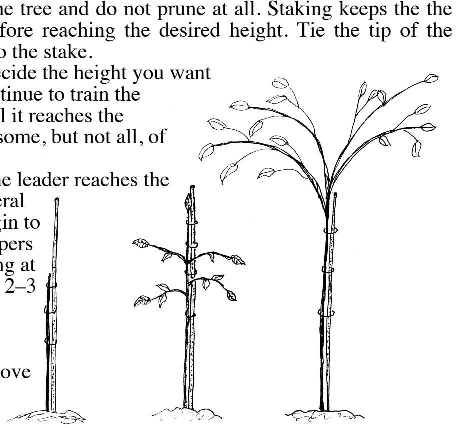
337A Sugar Tyme Crabapple, $25.00

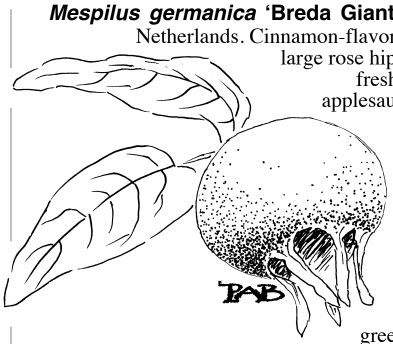
Training Your Weeping Crab

First summer: Stake the tree and do not prune at all. Staking keeps the the tree from weeping before reaching the desired height. Tie the tip of the central leader snugly to the stake.

Second summer: Decide the height you want weeping to begin. Continue to train the leader to the stake until it reaches the desired height. Leave some, but not all, of the lower branches.

Later years: Once the leader reaches the desired height, let several branches form and begin to weep. (The nicest weepers I've seen begin weeping at about 6–8' high.) Over 2–3 years, remove all the lower branches. Eventually remove the stake. Continue to remove lower branches as necessary.





***Mespilus germanica* 'Breda Giant' Medlar** 12-20' Introduced in the Netherlands. Cinnamon-flavored spicy pear-like fruit shaped like a large rose hip, just under 2" in diameter. Good for fresh eating when ripe, thin-skinned with applesauce-like texture. A culinary delight in Europe. One source recommends roasting in butter with citrus slices. Also makes good jelly, paste, chutney and "cheese." Fruit is hard when harvested after the first hard frost and must be bletted—allowed to ripen for several weeks in a cool place. Tastes best just before it turns mushy. 1–2" white flowers blushed with pink bloom May to June. Shiny green waxy leaves, a nice addition to the landscape. Begins bearing fruit 2–3 years after planting. One tree could bear 20 pounds of fruit once established. Fruit cultivated in Europe and England since the Middle Ages or earlier. Plant in well-drained fertile soil, 9–10' from other trees. Full sun. Pest and disease-free. Native to southeast Europe and Iran. Self-fertile. Z4/5. **ME Grown.**

338A Breda Giant Medlar, $25.00

***Metasequoia glyptostroboides* Dawn Redwood** 100' One of the most spectacular of the ornamental trees. The wide irregular trunk looks like something out of a fairy tale with its iridescent golden-orange bark that becomes deeply grooved, hollowed and fluted with age. The bright green deciduous needles turn orange in the fall. Grows quickly, up to 50' in 15–20 years, with many small-diameter horizontal branches and a uniform conical habit. Highly adaptable, easy to transplant. Prefers moist deep well-drained slightly acid soil in full sun. Will tolerate wet or dry sites. Pollution resistant; good specimen or street tree, rarely needs pruning. Fossils dating back 50 million years have been found in Japan. Thought to be extinct until it was "rediscovered" in central China in 1941. Resembles California redwoods only vaguely. Native of China and Japan. Z4.

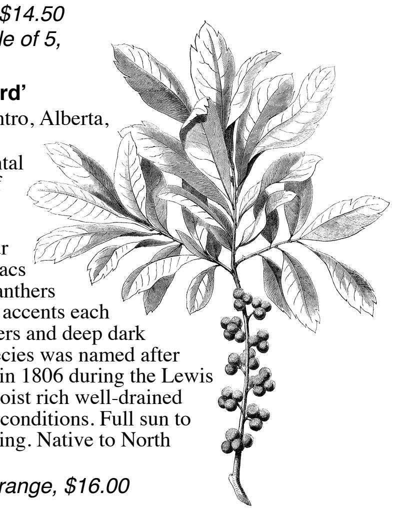
339A Dawn Redwood, $10.00

***Morus rubra* Red Mulberry** 40-70' x 40-50' Tall open irregular tree with juicy 1" blackberry-like fruit ripening over several weeks in midsummer. Fruit turns red then dark purple-black. Sweet when ripe and suitable for fresh eating, pies, fruit leathers, smoothies. Excellent forage crop for chickens and hogs. Irresistible to wild birds. Every summer, I look forward to close encounters with cedar waxwings as they dine on the upper branches and I on the lower. Large attractive deep green foliage turns a muted yellow in fall. Magically, the leaves drop all at once when the sun hits them on a frosty morning. Leaf shoots are edible when first emerging and roots have medicinal properties. Give them lots of room, up to 40 or even 50 feet apart. Prefers rich moist soils and full sun. May be self-fruitful but plant more than one for better results. Bears fruit in about 10 years. Native eastern and central U.S. Z4/5. **ME Grown**.

340A Red Mulberry, $14.00

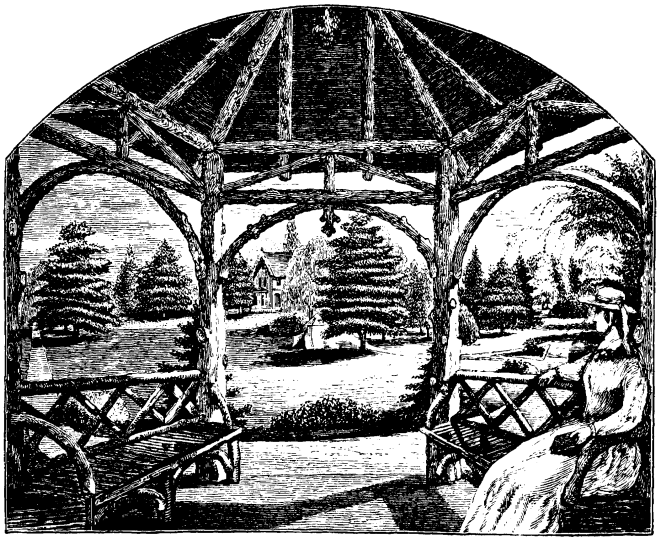
***Myrica pensylvanica* Bayberry** 5-9' Rounded deciduous semi-evergreen very salt-tolerant shrub thrives in full sun to partial shade and in sandy poor soils to heavy clay soils. A common sight on Maine's coastal islands. Rubbing the glossy deep green leaves between your fingers produces one of the most delicious smells in the world. Leaf and root teas are medicinal. Small greyish-blue waxy berries produced on female plants are highly aromatic, historically used for making candles. Non-showy flowers appear in late spring followed by fruit production during summer into late fall. Plants feed numerous wildlife species and are especially craved by swallows. Excellent in masses or hedges, tends to sucker. Fixes nitrogen. Tends toward being dioecious. Male and female plants required for good fruit development. We're offering unsexed plants; plant several if you desire fruit. Native to eastern U.S. Z2. **ME Grown**.

341A Bayberry, 1 for $14.50
341B Bayberry, bundle of 5, $65.00



***Philadelphus lewisii* 'Blizzard' Mockorange** 4-5' x 3' COPF intro, Alberta, Canada. Medium-sized coarse upright loosely arching ornamental blooming shrub. A "blizzard" of sweet citrusy fragrance from pure-white slightly cupped 4-petaled blossoms for up to four weeks in late spring, after the lilacs fade. A spray of golden yellow anthers attractive to bees and butterflies accents each flower. The contrast of the flowers and deep dark blue-green foliage is lovely. Species was named after Meriwether Lewis who noted it in 1806 during the Lewis and Clark Expedition. Prefers moist rich well-drained soils but will grow well in most conditions. Full sun to partial shade. Prune after flowering. Native to North America. Z3. **ME Grown**.

342A Blizzard Mockorange, $16.00



Conifers tolerate a wide range of soil conditions, but prefer a pH between 5.5–6.5. If you are planting in dry or well-drained areas, dip tree roots in Agri-gel solution before planting to protect roots from drying out. Do not use Agri-gel in heavy clay soils or wet areas. Do not soak conifers overnight; a good dipping is sufficient.

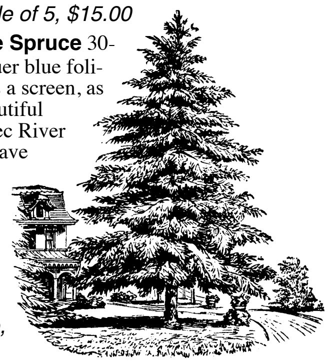
Before planting, prune off 1/3 of the roots. Dig a small hole or make an incision with a spade or planting bar and slip the tree in to the level it grew in the nursery. Fan the roots out; do not wind them around in the hole. It is much better to prune the roots than to crowd them in the hole. Water well and pack the earth down with your feet to remove air pockets.

Young conifers need 3/4-1" of rain per week. Periodic deep waterings are far more beneficial than frequent sprinklings. No fertilization is necessary in the first year. In later years you may fertilize around the drip line.

To make evergreens dense and compact, remove leader and center bud on the end of each side branch.

Picea abies **Norway Spruce** 80' Fast-growing wide-spreading upright picturesque tree with graceful long pendulous branches that often reach the ground. Largest of the spruce. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway Spruce just inside the front gate. Several of its massive drooping branches have rooted and turned into secondary trunks. It is truly amazing. Orange-brown scaly bark. Excellent lumber. Showy (marketable!) 4–6" cones. Bright green foliage. Prefers loam but does better than other spruces on poorer soils. Native to northern Europe. Grown in Maine. Z2. (9-18")

343A Norway Spruce, bundle of 5, $15.00



P. pungens glauca **Colorado Blue Spruce** 30-60' Very popular specimen tree with truer blue foliage than other cultivars. Can be used as a screen, as it is fast growing after 3'. There's a beautiful specimen on a lawn facing the Kennebec River near the Hinckley Bridge that owners have dubbed "Bruce the Spruce." So lovely you might want to name yours. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for first few years. Native to western U.S. Grown in Maine. Z2. (6-12")

344A Colorado Blue Spruce, bundle of 5, $15.00

Pinus banksiana **Jack Pine** 70' Very hardy tree native to Maine and one of the three dominant pine species of the northern boreal forest. Found down on the coast of Schoodic point and inland along lakes and ponds. Long spreading horizontal branches often have a gnarled contorted appearance. Used in Japanese gardens here in Maine because they are hardier than the traditional Japanese Black Pine. Curved cones remain closed for a long time and do not fall for 12–15 years. Dark brown bark with a redddish tinge is irregular and scaled. Plant in well-drained shallow acidic soil. If you have clay soil, place plenty of sand in the hole, mounding up the tree above grade, and mulch heavily. Z2.

345A Jack Pine, bundle of 5, $15.00

Agri-gel A hydrogel formulation which absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, non-toxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with one to three gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. *Not allowed for organic certification.* 1/2 oz.

7510 Agri-gel, $2.50

Pruning Directions for Ornamental Shrubs, Trees and Berries

Proper pruning enhances the beauty and usefulness of flowering shrubs and trees. Trim shrubs for large blooms, fine foliage and good form.

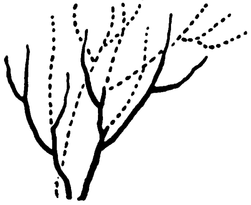
Why Pruning Is Necessary

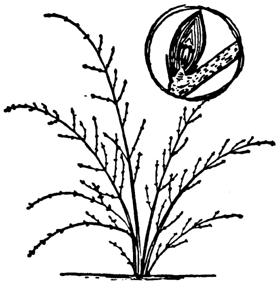
- Most shrubs need a few of the older canes cut off at the ground line each year to encourage the growth of new canes. This is a natural rejuvenation procedure replacing old canes with new.
- Pruning produces larger and better blooms as the vitality of the plant goes to the blossoms, rather than to supporting heavy wood growth.
- Remove poorly shaped longer branches to retain the natural shape of the shrub.
- Remove broken, dead or diseased branches for health, neatness and vigor.
- Shrubs with unusual bark coloring should have the older canes removed, as the full natural coloring is displayed best in the new growth.
- Certain varieties of shrubs sucker from the roots. Remove these suckers unless you want the shrub to spread and form colonies.

Pruning shrubs is primarily thinning out older undesirable canes. Plants such as hydrangeas, altheas, tea roses, tamarix and dogwoods should have all canes pruned back to produce larger flowers or more brightly colored canes.

The form of a tree may be controlled by pruning. If you desire a tall tree with a high crown, prune the lateral branches from the trunk and prevent formation of low crotches. For a low, stocky tree used in screens and windbreaks, cut back the top shoots to force side growth.

Remove oldest wood and center branches (a few each year).





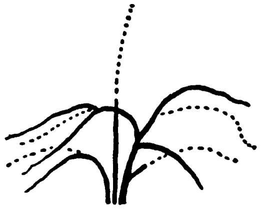
Prune Late-Flowering Shrubs Early

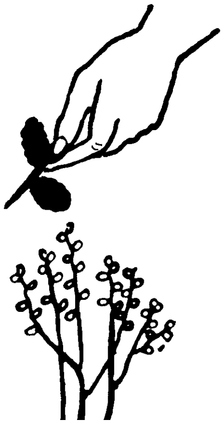
Midsummer-flowering shrubs form flower buds on new wood. For maximum bloom, prune them in early spring before the new wood begins to grow.

Prune Early-Flowering Shrubs Later

Spring-flowering shrubs form flower buds in the summer after they are finished blooming. For maximum bloom the following year, prune them immediately after their bloom is over.

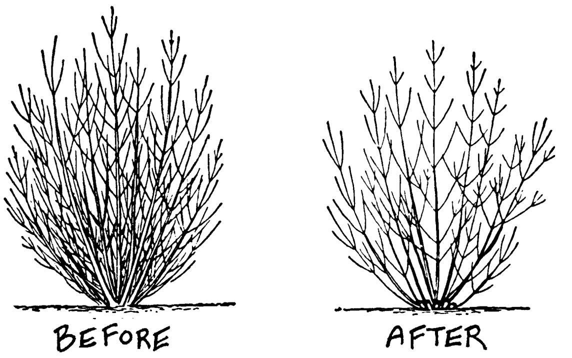
Retain natural arching habit by pruning branches after flowering. Otherwise new growth starts at the tips of flowering branches and the shrub gets top-heavy.





Pinch off the growing tips and remove flowers as soon as faded.

Prune For Healthy Growth

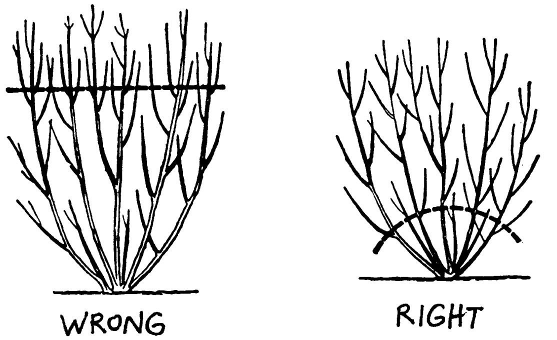


Before

Your shrubs will tell you when they need thinning. Shrubs such as honeysuckle send up too many canes for optimal growth. Cut off a few of the oldest and least vigorous branches close to the ground. Do not injure the bark on canes to be saved.

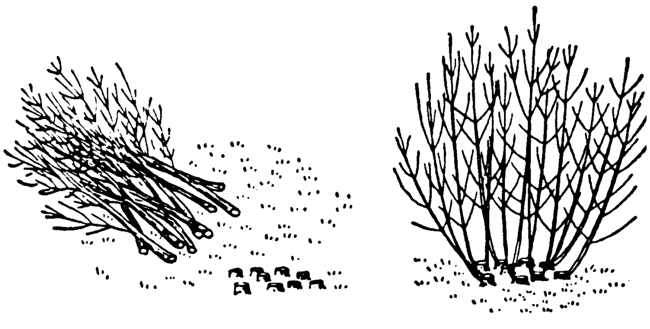
After

Note the difference thinning of canes makes. Air and light can now penetrate. Fewer canes promote vigor, health and vitality. Plants will produce more and larger blossoms. Slow growing, less vigorous shrubs seldom need thinning out.



Prune For Symmetry and Appearance

Cutting back shrubs straight across the top is a common error. This encourages top-growth and the lower part of the shrub, with no foliage near the base, becomes woody and unsightly. Growth stays low and bushy when properly pruned. Proper pruning promotes growth at the base of the shrub.



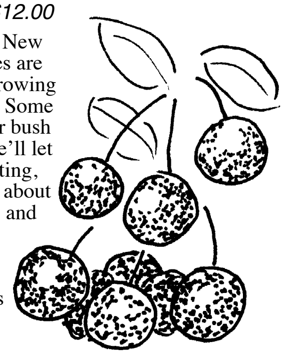
What To Do with Overgrown Shrubs

Overgrown shrubs with little foliage near the base may be rejuvenated by cutting canes down to the ground in early March, even though early blooms may be sacrificed that year.

Shrubs cut back for rejuvenation will send forth new shoots in late spring. This growth will be bushy with foliage clear to the ground. Pinch off tops when the desired height is attained. It usually takes two to three years to rejuvenate shrubs and hedges completely.

***Potentilla fruticosa* 'Mango Tango' Potentilla** 2x2' Univ. of Manitoba intro, Canada. Also called **Shrubby Cinquefoil** or **Widdy**. Compact rounded bushy shrub with showy five-petaled rose-like flowers. Blooms all summer long, usually beginning the year you put it in the ground. Your bees will love it. Mango Tango is a new cultivar sporting unusual tricolor flowers with a base color of deep yellow and shades of orange and red radiating from the center. Colors are best during cool weather and in full sun. Very small attractive grey-green compound leaves. Excellent landscape plant for shrub borders, low hedges, rock walls and steps. Easy to grow. Best in fertile moist well-drained soil, but tolerates poor dry soil. Full sun or partial shade. Said to need sweating before planting to break dormancy, but we've been planting them without any special treatment for years and have never had a failure. Unbelievably hardy and low maintenance. Native to northern hemisphere. Z2. **ME Grown**.

346A Mango Tango Potentilla, $12.00



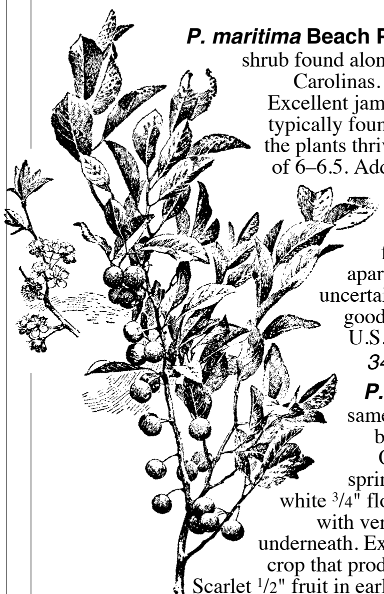
***Prunus* x *kerrasis* Dwarf Sour Cherry** New crosses between sour and Mongolian cherries are causing a great deal of excitement in fruit-growing circles these days. Productive and delicious. Some growers have reported getting 20–30 lbs. per bush after 3–5 years. On trial now in Palermo. We'll let you know how they do up here. Self-pollinating, prefers full sun and decent soil with a pH of about 6.5. Pamper them with mineral amendments and compost. Small potted rootings. Last year some folks were concerned about the size and hardiness of the plants. Don't be deceived by appearances! Our trial plantings of last year's selection have fared well and are going strong. Rare. Z3. (2" pots)

***P.* x *k.* 'Carmine Jewel'** About 6-7' x same. Midsummer. University of Saskatchewan intro, 1999. Dark purple skin and flesh, small pits. Good for both fresh eating and processing.

L347A Carmine Jewel Dwarf Sour Cherry, $16.00

***P.* x *k.* 'Crimson Passion'** 4-5' x same. Late Summer. Sibling of Carmine Jewel. U of Saskatchewan intro, 2006. Released for export to the U.S. in 2011. Large dark red fruit. Excellent fresh eating with high sugar content and firm flesh.

L348A Crimson Passion Dwarf Sour Cherry, $16.00

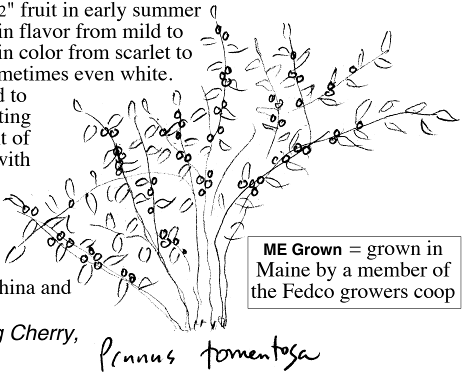


***P. maritima* Beach Plum** 6' x 5-6' Rounded dense suckering shrub found along ocean beaches, New Brunswick to the Carolinas. Purplish-red 1/2–1" fruit in late summer. Excellent jams, sauces, and especially jelly. Although typically found growing naturally in poor sandy soils, the plants thrive in well-drained fertile soils with a pH of 6–6.5. Additional fertilization will further increase productivity. We suggest an annual 5-gallon bucket or two of compost per plant. Prune to maintain an open center for good light penetration. Plant about 5' apart. Although pollination requirements are uncertain, we recommend planting at least 2 for good fruiting. Salt tolerant! Native to eastern U.S. Z3. **ME Grown**.

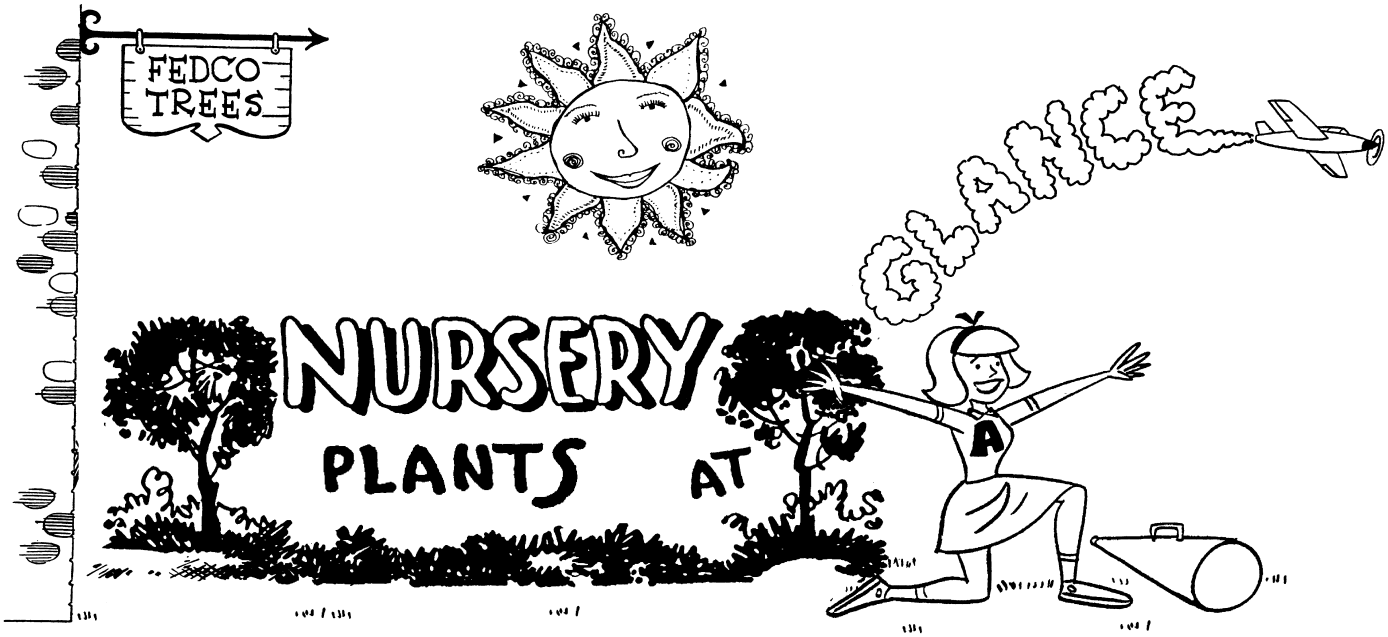
349A Beach Plum, $14.00

***P. tomentosa* Nanking Cherry** 6-10' x same. Broad dense highly ornamental shrub, becoming open and attractively irregular. One of the earliest flowering fruits every spring. Pink buds open to masses of fragrant white 3/4" flowers. Deeply veined light green foliage with very fine fuzz (tomentosa) lining each vein underneath. Excellent hedge plant: an edible landscape crop that produces a lot of fruit that actually *is* edible! Scarlet 1/2" fruit in early summer ranges in flavor from mild to tart and in color from scarlet to clear red to pink and sometimes even white. Eat fresh or frozen. Said to make a good pie but pitting would require quite a bit of work. Covering plants with netting will deter birds from robbing your crop. Prefers full sun in well-drained soil. Plant two or more for pollination. Native to China and Japan. Z2. **ME Grown**.

350A Nanking Cherry, $14.00

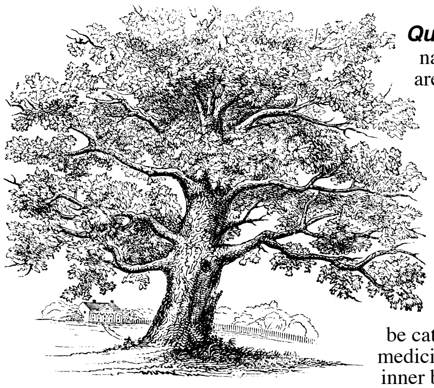


ME Grown = grown in Maine by a member of the Fedco growers coop



Page	Name	Native Plant	Edible Landscape	Medicinal Plant	Orchard Companion	Drought Tolerant	Wet Tolerant	Shade Tolerant	Hedges	Specimen	Ground Cover	Vine or Climber
10-21	Apple		◆							◆		
24	Apricot		◆									
57	Arborvitae	❀		◆			◆	◆	◆			
69	Arnica	❀		◆	◆		◆				◆	
40	Asparagus		◆									
47	Bayberry	❀		◆		◆			◆			
39	Bearberry	❀		◆		◆					◆	
40	Birch, Paper	❀								◆		
40	Birch, Sweet	❀	◆									
41	Bittersweet, American	❀										◆
69	Black Cohosh	❀		◆				◆		◆		
45	Black Walnut	❀	◆	◆						◆		
29	Blueberry, Highbush	❀	◆		◆		◆			◆		
29	Blueberry, Lowbush	❀	◆	◆		◆					◆	
34	Buckeye, Bottlebrush	❀						◆				
41	Butterfly Bush									◆		
60	Butterfly Weed	❀		◆	◆	◆						
41	Buttonbush	❀					◆	◆	◆			
41	Catalpa	❀								◆		
24-25	Cherry, Sweet, Pie		◆							◆		
42	Cherry, Cornelian		◆	◆		◆			◆	◆		
49	Cherry, Dwarf Sour		◆							◆		
49	Cherry, Nanking		◆						◆			
40	Chokeberry, Red, Black	❀	◆	◆		◆	◆					
55	Coralberry	❀		◆					◆			
46-47	Crabapple		◆							◆		
57	Cranberry, American	❀	◆	◆		◆	◆				◆	
58	Cranberry, Highbush	❀	◆	◆			◆		◆			
47	Dawn Redwood									◆		
42	Dogwood, Pagoda	❀						◆		◆		
42	Dogwood, Redosier	❀					◆		◆			
39	Dutchman's Pipe	❀						◆				◆
69	Echinacea	❀		◆		◆						
55	Elderberry	❀	◆	◆	◆		◆		◆	◆		
57	Elm, American	❀				◆	◆			◆		
63	Fern	❀					◆	◆			◆	
43	Forsythia								◆	◆		
43	Fothergilla, Dwarf	❀								◆		
69	Ginger, Wild		◆					◆			◆	
43	Ginkgo		◆	◆						◆		
32-33	Grape	❀	◆			◆						◆
39	Groundnut	❀	◆				◆					◆
42	Harry Lauder's Walking Stick									◆		
42	Hazelnut	❀	◆						◆			
41	Heather		◆			◆				◆	◆	

Page	Name	Native Plant	Edible Landscape	Medicinal Plant	Orchard Companion	Drought Tolerant	Wet Tolerant	Shade Tolerant	Hedges	Specimen	Ground Cover	Vine or Climber
43	Hibiscus								◆	◆		
41	Hickory, Shagbark	❁	◆							◆		
45	Honeyberry		◆	◆					◆			
39	Horseradish		◆									
44	Hops			◆				◆				◆
64-65	Hosta							◆		◆		
44	Hydrangea, Climbing							◆				◆
70	Hyssop			◆	◆	◆						
65	Iris, Siberian						◆			◆		
34	Kiwi, Hardy		◆									◆
45	Larch, American	❁		◆			◆			◆		
65	Lavender			◆		◆						
56	Lilac								◆	◆		
62	Lily of the Valley					◆		◆			◆	
57	Linden	❁	◆	◆				◆		◆		
58	Lingonberry	❁	◆			◆					◆	
34	Maple, Red	❁					◆			◆		
34	Maple, Sugar	❁	◆					◆		◆		
47	Medlar		◆							◆		
47	Mockorange	❁								◆		
55	Mountain Ash, Korean				◆			◆		◆		
47	Mulberry, Red	❁	◆									
52	Oak, Bur	❁	◆							◆		
52	Oak, Red	❁	◆					◆		◆		
52	Oak, Swamp White	❁	◆				◆			◆		
52	Oak, White	❁	◆							◆		
25-26	Peach		◆	◆						◆		
22-23	Pear		◆									
23	Pear, Asian		◆									
41	Peashrub, Siberian		◆	◆	◆	◆			◆			
48	Pine, Jack	❁								◆		
49	Plum, Beach	❁	◆						◆			
28	Plum, European		◆							◆		
26-28	Plum, Hybrid		◆						◆			
49	Potentilla	❁				◆	◆			◆		
68	Pulmonaria							◆			◆	
43	Quince		◆									
30	Raspberry	❁	◆	◆					◆			
42	Redbud	❁								◆		
52	Rhubarb		◆									
52	Rosa rugosa		◆	◆		◆			◆			
53	Rose, Virginia	❁	◆	◆		◆			◆	◆		
53	Rose, shrubs									◆		
53	Rose, Cardinal de Richelieu								◆			
53	Rose, Henry Kelsey									◆		◆
53	Rose, William Baffin									◆		◆
67	Sage, Russian					◆				◆		
39	Serviceberry, Juneberry	❁	◆				◆					
43	Smoketree	❁								◆		
55	Snowberry, White	❁		◆					◆			
45	Spicebush	❁	◆	◆			◆					
55	Spirea, Crisp Leaf					◆						
48	Spruce, Colorado Blue	❁				◆			◆	◆		
48	Spruce, Norway					◆			◆			
31	Strawberry		◆								◆	
63	Strawberry, Alpine	❁	◆	◆							◆	
42	Summersweet, Clethra	❁					◆	◆	◆	◆		
45	Sweetspire	❁					◆		◆	◆		
31	Thimbleberry	❁	◆				◆	◆	◆			
58	Viburnum, Nannyberry	❁	◆			◆			◆			
58	Viburnum, Possumhaw	❁					◆		◆			
58	Weigela								◆	◆		
54	Willow, Blue Leaf Arctic						◆		◆			
54	Willow, Dappled						◆		◆	◆		
54	Willow, Goat				◆		◆					
54	Willow, Pussy				◆		◆		◆	◆		
54	Willow, Weeping			◆			◆			◆		
44	Winterberry	❁		◆			◆		◆			
43	Witch Hazel	❁		◆			◆	◆		◆		



Quercus **Oak** Many oaks are native to New England. They are generally divided into two groups: the reds and the whites. The reds have pointier leaves and the whites have rounder ones. Most of them make absolutely breathtaking shade trees, having the capacity to provide a major presence in almost any landscape. Some are nearly godlike in stature. All can be categorized as both edible and medicinal. The strongly astringent inner bark, foliage and acorn caps are all medicinal. Most importantly however, acorns were an extremely important human food source for thousands of years. Oaks are monoecious so you need only one to get fruit.

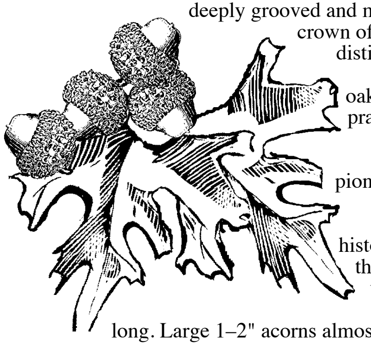
Contrary to much of the literature, all acorns are edible, both reds and whites. When fresh, all of them are bitter, astringent, high in tannin, and basically inedible. There is no perfect edible acorn, ready to pop into your mouth right off the tree. All require substantial hot or cold leaching, a process that removes the tannins through repeated soaking or boiling. Once that's done, the resulting mash can be dried and stored and used like flour or eaten as we might eat rice or oatmeal. High in starch and oil, moderate in protein. Storeable in the nut form for years. No tilling or weeding or soil erosion ever. For detailed instructions on acorn processing, see Samuel Thayer's book, *Nature's Garden*.

Q. alba **White Oak** 60-80' x same. Spectacular broad irregularly rounded oak with low-lying branches that stretch out horizontally from the trunk, sometimes as much as 50 feet. One of the most beautiful specimens we know is in Bedford, New York. Carved into a rock near the tree: "The Bedford Oak. Dates back to the 15th century." Stop and see it if you can; it's just a few miles off I-684. Some extremely fine specimens closer to home here in Maine grow on Swan Island in the Kennebec River right off Richmond. Bark is finely grooved and etched. The bark tea makes an effective astringent. Wood is valued for lumber and firewood. Edible acorns attract a diversity of wildlife. Once common along the Maine coast, it was almost entirely stripped for boat building lumber over a century ago. Soil adaptable though it prefers deep moist well-drained acid conditions. Thrives in locations where leaves can be left at the base; avoid soil compaction, even foot traffic. Disease and insect-resistant, drought tolerant. Slow growing and extremely long-lived. Native to eastern U.S. Z3. **ME Grown**. (10-12" 2-yr hardy transplants)

351A White Oak, $14.00

Q. bicolor **Swamp White Oak** or **Bicolor Oak** 50-60' x same. A massive rounded shade tree with a short deeply ridged trunk and a fan of branches, the uppermost ascending and the lower drooping. The contrast between the light grey bark and the dark trunk fissures is particularly striking. Called Swamp White in recognition of its affinity for the wild low wetlands that once peppered eastern North America before the days of the parking lot and the Big Box. Called Bicolor because its large thick leathery lobed leaves have a glossy dark green upper surface and a white to greyish-green hairy felty underside. Its large 1$^{1}/_{2}$" sweet acorns are highly attractive to wildlife, particularly waterfowl, sapsuckers and (ugh) squirrels. Its yellow to reddish-purple fall foliage persists until spring. Prefers moist acid soils where drainage is poor, but exhibits excellent drought resistance as well. Very fast growing once established. This year's stock propagated from NH seed. Native to northeastern U.S. Z3. **ME Grown**.

352A Swamp White Oak, $14.00



Q. macrocarpa **Bur Oak** 70-80' x same. Hardiest of the white oaks with a deeply grooved and massive trunk, and a wide-spreading crown of huge branches. Small branches are distinctively corky, winged, and tend to twist and kink. I first learned of bur oaks and their impressive resistance to prairie fires in Aldo Leopold's *A Sand County Almanac*. Leopold (1877-1948) was an ecologist and pioneer conservationist who wrote, "He who owns a veteran bur oak owns more than a tree. He owns an historical library, and a reserved seat in the theatre of evolution." The habit is upright and somewhat vase-shaped. Lustrous dark green foliage 4–12" long. Large 1–2" acorns almost entirely enclosed in a fringed cup. These are edible and low in tannic acid; when roasted they supposedly make a decent coffee substitute. Needs full sun. Tolerates clay soils, dry to moist, acid to alkaline. The most urban-tolerant oak. Pyramidal in youth. Fairly fast growing. Native of eastern U.S. and Canada. Z3. **ME Grown**. (2-5')

353A Bur Oak, $25.00

Q. rubra **Red Oak** 60-80' Also called **Northern Red Oak**. The most common oak in northern New England and a common tree in central Maine. Typically a single large trunk dividing into several large ascending spreading branches. While the branches are not as massive as some of the other oaks, its open rounded crown is magnificent. The trunk is a deep grey textured web of surfaces overlaid one upon another. Sharply toothed foliage turns orange-tan during apple season. The 1" acorns were a staple food of pre-contact North Americans; now they are mostly left to the wildlife. They sprout with ease more or less wherever they land. Fast growing, up to two feet per year. Prefers well-drained sandy slightly acid soils. Those on our farm thrive in the shallow ledgey ground. Tolerates shade, compacted soil, salt, pollution and other urban conditions. Native to eastern U.S. Z4. **ME Grown**.

354A Red Oak, $14.00

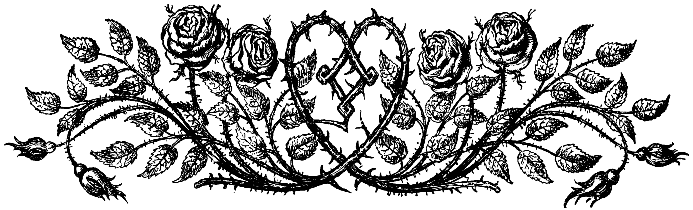
Rheum rhabarbarum **'Victoria' Rhubarb** Summer. Joseph Myatt intro, Manor Farm, Deptford, England, 1837. Heirloom variety with thick bright red tender citrusy tart stalks. Famous for pie and wine, but also good in sauce, bread, juice, soup or cooked with meat and fish. Rhubarb's clumps of juicy acid leaf stalks were once a staple food. The root is a toning purgative herb traditionally used every spring for thousands of years. There are dozens if not hundreds of rhubarb varieties. Victoria is one of the first and most famous, named to honor the Queen herself. Recipes that subsequently found their way into Victorian cookbooks included rhubarb compotes, rhubarb fools and rhubarb charlottes. Some say it was this variety that mainstreamed rhubarb in both the U.K. and the States. Probably originated in China and travelled across Asia on the Silk Road to Turkey and then into Europe. Eventually brought to North America through the efforts of Ben Franklin and John Bartram. Low-maintenance heavy producer will continue through summer if stalks are removed and new leaves allowed to grow. Water during dry spells for extended season. Add compost when planting and give ample room for 3–4' large stalks to grow. Leaves are *not* edible. Z3. **ME Grown**. (2-yr crowns)

L355A Victoria Rhubarb, $10.00

Rhubarb

Plant the top of the root division level with the surface in well-prepared well-drained rich slightly acid soil (pH 5.5–6.5). Add a bushel of well-rotted manure or compost under each crown. When plants are established, fertilize liberally with manure and balanced garden fertilizer or compost every spring, as it's a heavy feeder. Harvest for four weeks two years after planting. Thereafter you can harvest for 8–10 weeks each year. Never remove more than $^{2}/_{3}$ of the stalks from a plant.

Every ten years or so, divide plants in early spring, leaving about $^{1}/_{3}$ of the crown in place. Cut up the remainder into fist-sized pieces and replant.



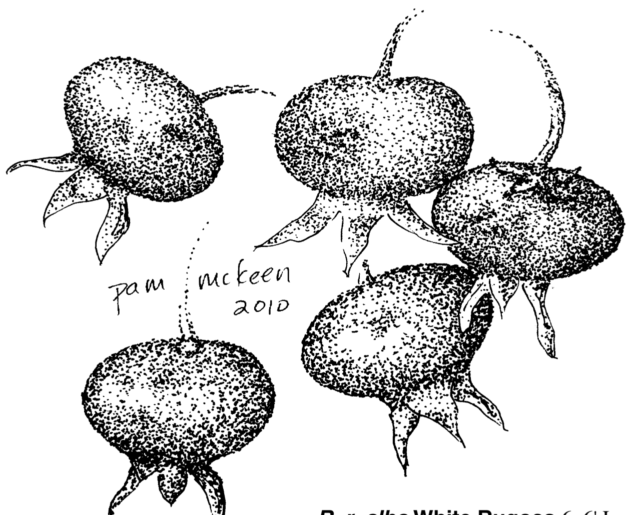
Rosa **Rose** Exceedingly hardy, vigorous, disease- and pest-resistant, and significantly easier to grow than most named varieties. These roses need not be pampered; all are rugged and hard to kill. Recommended as a solution for those who want roses but are tired of struggling with tender hybrid tea roses, or who associate roses with pests, poisons, disease and winterkill.

We focus on hardiness and fragrance in our rose selections. If the description says very fragrant, it is! We also regularly feature roses with large edible hips. See below for more about rose hips.

Each year we offer a different selection of the best varieties available. If your favorite is not on the list this year, we may be offering it next year. We cut our plants back to about 6" to encourage optimal growth and bloom. (stocky well-rooted plants)

R. rugosa 4-6' x same. Also called **Japanese Rose** or **Beach Rose**. Vigorous spreading shrub. Flowers range from deep pink to white. Red hips up to 1" for jams, teas, and fresh eating right off the bush. Flower buds used in traditional Chinese medicine to regulate *qi* and promote blood circulation. The dark green wrinkled (rugose) leaves form a backdrop for the highly fragrant single flowers and the large edible hips which follow. Blooms form on both old and new wood, so pruning necessary only to control size. Prefers full sun and well-drained fertile soil with a pH of 6–7, but will grow in depleted soil and even sand. Tolerates salt, pollution and drought; practically care-free. Although native to China and Japan and assumed to have been brought here by sailors long ago, there is now reason to believe that the rugosas may have been here for many centuries and may even be native. Z2. **ME Grown**. (1-2' canes)

356A Rosa rugosa, bundle of 4, $18.00



***R. r. alba* White Rugosa** 6x6' Large spreading shrub will form colonies along the bank, the seashore or even across your lawn. Pink buds and large 2–3" pure white single 5-petaled flowers with cream-colored stamens. Fragrant, recurrent bloomer. Large orange hips. Orange and scarlet fall foliage color. Incredibly rugged, tolerates clay, muck, sand and salt. Z2. **ME Grown**.

357A White Rugosa Rose, $12.50

***R. gallica* 'Cardinal de Richelieu'** 3x4' Originated in Laffay, France, 1840. Parentage unknown but probably includes a China Rose. Exquisite fragrant deep purplish-red double flowers lighten as they mature. Flowers midsummer. Lasting velvety 3" blossoms are loosely cupped. Smooth dark green foliage, smooth stems, bushy habit. Named after Louis XIII's famous minister, the inventor of modernity. Gallicas are one of the most celebrated of all ancient roses, steeped in history, legend, and myth. Thought to have originated in what is now Turkey or Iran, gallicas were brought to France where more than 2000 varieties were named. Probably in the parentage of most modern roses. A tough plant, soil adaptable and easy to grow in sun or partial shade. Disease resistant. Z3/4.

358A Cardinal de Richelieu Rose, $12.50

***R.* 'Champlain'** 3x3' [(*R. kordesii* x seedling) x (Red Dawn x Suzanne)] Explorer Series, Canada, 1982. Compact bushy shrub-type everblooming rose. Clusters of semi-double lightly fragrant 2–3" velvety red flowers bloom prolifically all season long. Small center of yellow stamens. Petals are slightly wrinkled but never frilly and will turn purplish as they fade. Flowers appear in early July in central Maine and continue until hard frost. Glowing orange-red hips in winter. Named for the explorer Samuel de Champlain who is said to be the first European to cultivate roses in North America. Resistant to mildew, blackspot, and even aphids. May die back in Zone 3 but should recover nicely; winter protection will help. Certainly hardy to Zone 4.

359A Champlain Rose, $12.50

***R. pimpinellifolia* 'Harison's Yellow'** 6' (*R. pimpinellifolia* x *R. foetida persiana*) 1830. Yellow roses up north are rare. Harison's is a classic deep yellow. Creates a brilliant spectacle every June. Licorice-scented 2" double flowers trail down long arching canes of delicate greyish-green foliage. Large thorns. Bred by an amateur propagator named Harison who crossed Scotch Briar and Persian Yellow. Z4.

360A Harison's Yellow Rose, $12.50

***R.* 'Henry Kelsey'** 6-7' (*R. kordesii* hybrid x seedling) Explorer Series, Ottawa, 1984. One of the best hardy climbing or, more accurately, long-caned varieties for colder climates. Vivid velvety red semi-double 3" blooms with brilliant golden stamens will gussy up any post or trellis. Similar to Champlain although slightly larger and a slightly deeper red. Fades to deep rosy pink. Repeat bloomer with modest spicy fragrance. Shiny deep bluish-green foliage. Tie the long arching canes to a trellis or arbor, or let them reach low across the garden. Branches can be left to overwinter with minimal, if any, winter damage. Ours survived –30° with no problem. Appropriately named after Boy Kelsey, "discoverer" of the Canadian prairies in the late 1600s. Disease and mildew resistant. Z3. **ME Grown**.

361A Henry Kelsey Rose, $12.50

R. 'Morden Fireglow' 1½x3' Complex parentage, developed using a seed parent derived from Prairie Princess, Morden Amorette, White Bouquet, Assiniboine and *R. arkansana*; the pollen parent was Morden Cardinette. Morden Ag Research Center, Manitoba, Canada. Parkland Series 1989. Unique low-growing shrub with superb 2–3" flaming orange-red delicate fragrant flowers each with a scarlet underside. Resembles *Rosa floribunda* more than a shrub rose. Truly stunning. Blooms recurrently from June through October. Pointed buds are elegantly poised in clusters of five. If you desire something different, this is the one for you. May die back during severe winters but is extremely hardy. Resistant to mildew and rust. Z2.

362A Morden Fireglow Rose, $12.50

R. 'Therese Bugnet' 6x4' [(*R. acicularis* x *R. kamtchatica*) x (*R. amblyotis* x (*R. rugosa plena* x Betty Bland))] George Bugnet intro, Alberta, Canada, 1950. Vigorous upright fountain-shaped rugosa hybrid. Extremely fragrant large 3–4" ruffled lilac-pink double flowers have an informal "old rose" look. Blooms prolifically in late spring and fall with repeats throughout the summer. The first flush is so full of blossoms that the foliage can barely be seen. For maximum flowers, train canes laterally on trellis or fence. Practically thornless near the blossoms, making it easy to pick for bouquets. Long narrow grey-green foliage. Canes turn red in winter. Particularly beautiful in the snow. Disease resistant. One of the hardiest of the rugosa types. Fast growing. Z3. **ME Grown**.

363A Therese Bugnet Rose, $12.50

***R. virginiana* Virginia Rose** 4-6' Also known as **Prairie Rose**. Low-maintenance native with fragrant single pink 2" blossoms in June. One of the most common wild roses. Low to medium-sized shrub with dense red canes. Glossy dark green foliage turns red-orange in fall. Bright red ½" hips mature in August and can be harvested for tea, jams, and a variety of other uses or left for the birds to eat throughout the winter. Suckers freely making an excellent barrier or hedge, creating a habitat for wildlife including nesting birds, reptiles, amphibians, spiders, bumblebees, honeybees and assorted beneficial insects. Perfect for steep banks or slopes, or anywhere you need erosion control. Thrives in sandy soils and tolerates salt. Z3. **ME Grown**.

364A Virginia Rose, $12.50

***R.* 'William Baffin'** [*R. kordesii* seedling x (Red Dawn x Suzanne)] Explorer Series, Canada, 1983. 8–10' tall canes with prolific 2–3" semi-double luminous dark pink flowers. The loose informal blooms have small blotches of white variegation emerging from the center; bright yellow stamens. Flowers continuously all summer. Upright slightly arching long flexible canes suitable for climbing a trellis or arbor. Can be left climbing all winter in most locations with no bud damage. Glossy foliage. Small orange-red hips persist well into winter. Vigorous and disease resistant, one of the hardiest roses. Z3. **ME Grown**.

365A William Baffin Rose, $12.50

GOOD
HARDY
ROSES

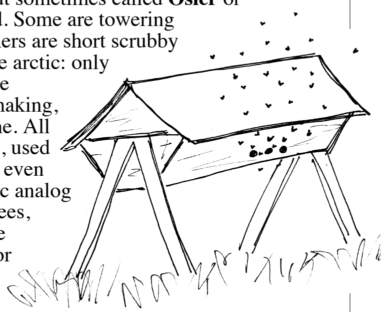
Roses prefer full sun (at least 4–6 hrs per day) and a pH of 6.0–7.0. Space them 4–6' apart. They will do well in most well-drained soils with a good amount of organic matter. In locations with poor drainage, add gravel at the bottom of the planting hole, or build in drainage. Pick a site with good air drainage, but avoid sites with cold northwest winds. Avoid competition with tree roots

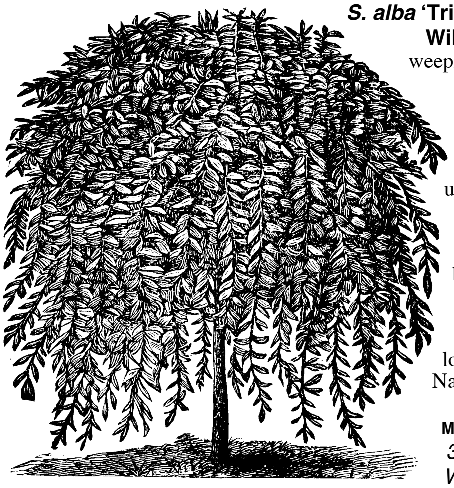
Plant roses as early as soil can be worked. Most roses' roots don't spread beyond the original hole, so dig a bushel-sized hole, as deep as 2' or more. We recommend a bale of rotten hay in the bottom of the planting hole. Mix soil with liberal quantities of well-rotted manure and compost. Add a coffee-can full of rock phosphate or bone meal.

Soak roots in water overnight or up to three days before planting. Prior to planting, prune roses back to 3 canes, 4–5" tall. Plant them 1" below the level they were in the nursery. Add water as you fill in the hole to puddle it in. Mound soil around branches to prevent them from drying out, and to encourage buds to sprout. As the buds open, pull back the soil to the correct level.

Shrub roses and climbers will require little pruning in later years. Any pruning should wait until after the forsythia blooms. Remove dead or broken branches, and periodically cut out the oldest wood. Keep roses well mulched to retain moisture and reduce weeds. Add 2 shovelfuls of composted manure to each crown late in the fall. For more information see Suzanne Verrier's pamphlet *Growing Old-Fashioned Hardy Roses Organically*, available in the book section of our Seed Catalog.

***Salix* Willow** The genus *Salix* comprises hundreds of different species of plants most commonly called willows but sometimes called **Osier** or **Sallow**. Willows grow all over the world. Some are towering specimens, like the weeping willow. Others are short scrubby bushes, like some willows growing in the arctic: only 2 feet tall but 100 years old! Uses include ornamental landscaping, shade, basket-making, erosion control, timber, fuel and medicine. All parts, especially the bark, contain salicin, used for pain and fever relief for hundreds, or even thousands, of years. Aspirin is a synthetic analog of salicin. Willows feed local wildlife, bees, insects and birds. We plant them near the orchard to provide early season forage for our native pollinators. All prefer sun and loamy wet soils, but are adaptable, easily transplanted, and fast-growing.





***S. alba* 'Tristis' Niobe Weeping Willow** 50x50' The classic weeping willow, a very large majestic graceful wide-spreading tree. Golden drooping branches, which can hang to the ground, are used for basket weaving; golden bark and leaves used medicinally. Harvest twiggy branches in early spring to make a tincture. Buzzes with life when May flowers attract loads of pollinating bees. Native to southern Europe and western Asia. Z4. **ME Grown.**

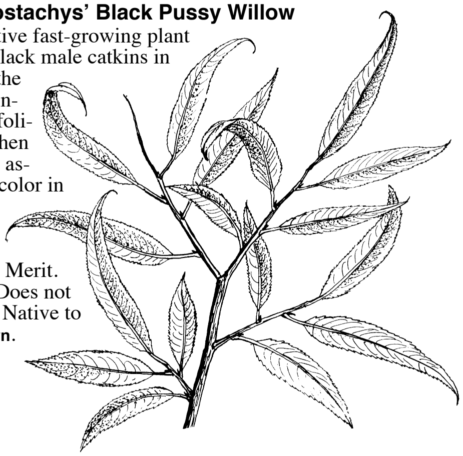
366A Niobe Weeping Willow, $10.00

***S. caprea* Goat Willow** 20x12' Also called **Great Sallow** or **French Pussy Willow**. A showier European version of our common native *S. discolor*. One of the first signs of spring. On a dreary cold day during mud season, the light of an overcast sky makes the newly emerging catkins look like diamonds in the grey landscape. Nothing makes me happier on the drive home from the warehouse. Cut early spring branches and put in a vase with other pussy willows. No water needed! 1–2" long male catkins. Recommended as a companion plant in the orchard, an excellent source of early spring pollen for winter-weary bees. Prefers woodland edges and lowlands but adaptable. Native to the U.K. but long naturalized in much of Europe. Not to be confused with French Pink Pussy Willow. Z3. **ME Grown.**

367A Goat Willow, $10.00

***S. gracilistyla* 'Melanostachys' Black Pussy Willow** 6-10' x same. Very attractive fast-growing plant for wetland areas. Deep black male catkins in early spring, suitable for the dining table or kitchen windowsill. The rather short foliage emerges orange and then turns a deep green. Stems assume a rich purple-black color in winter. Very nice dark colors all year. Winner of Royal Horticulture Society Award of Garden Merit. Prune in summer or fall. Does not like shallow chalky soils. Native to eastern Asia. Z4. **ME Grown.**

368A Black Pussy Willow, $10.00

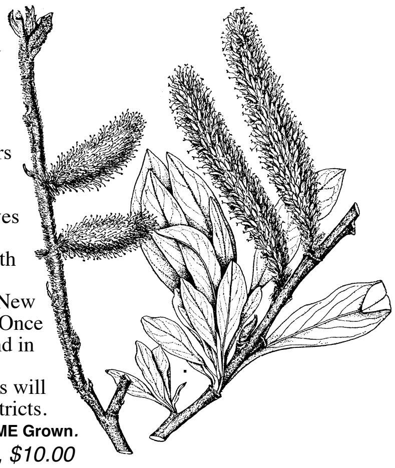


How the Micmac collect bark for medicine

My mother usually only gathered barks when she had a use for them. She believed that if you collected medicines when you didn't need them, you were inviting sickness into your life.…She used to pray before she did anything else.…Then she collected the medicines. She would always use bark from the part of the tree on which the sun was shining, and gathered it in the morning or early afternoon if she could. Mother always said to get the bark from the east or south sides of the tree, because it was the best for medicine.…She emphasized that [the bark] should be cut, peeled and scraped in a motion away from the body towards the roots. "This shows that the illness is leaving the body of the sick person," she explained.

from *Micmac Medicines, Remedies and Recollections* by Laurie Lacey

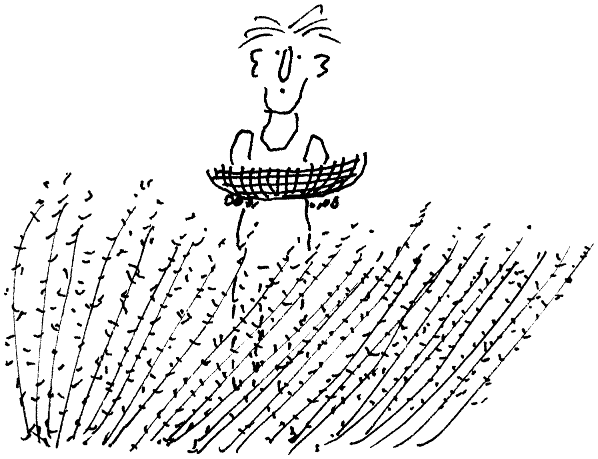
***S. integra* 'Hakuro Nishiki' Dappled Willow** 3-5' x same. Harry Van de Laar introduction, Boskoop, Holland, 1979. Also called *S. integra* 'Alba Maculata' as well as 'Fuiji Koreangi', 'Fuiji Nishiki', Flamingo Willow, 'Albomarginata' or Variegated Willow. Highly ornamental slender 4" pastel pink, white and green variegated foliage, maturing to green and creamy white. Some of the leaves are pure translucent white. Others have a tint of pale pink and others are tri-colored. Rounded spreading form with slender arching radiating branches. Leaves turn yellow in fall and drop late. For a dramatic contrast, plant with an evergreen background to highlight its luminary qualities. New stems turn a coral red in winter. Once established, prune it to the ground in early spring to ensure continued variegated foliage. Foliage colors will be best in full sun and colder districts. Native to Japan and Korea. Z4. **ME Grown.**



369A Dappled Willow, $10.00

***S. purpurea* 'Nana' Blue Leaf Arctic Willow** 3-5 x 3-6' Selection of Purple Osier willow. Medium-sized spreading shrub with small narrow blue foliage (actually greenish above and blue beneath) and delicate thin long red or green stems. This is the "angel hair" of willows. The graceful thin stems sucker, layer and form a thick and highly attractive ornamental mass. Long cultivated and used for fine-textured basket-making. Excellent bank or hedge plant, especially in wet areas but also quite suitable for a highly visible location. I've seen it used in a perennial bed; it looked great. If it gets too overgrown, cut it to the ground every couple of years and it'll come right back. Native from Europe to North Africa to Japan. Z3. **ME Grown.**

370A Blue Leaf Arctic Willow, $10.00

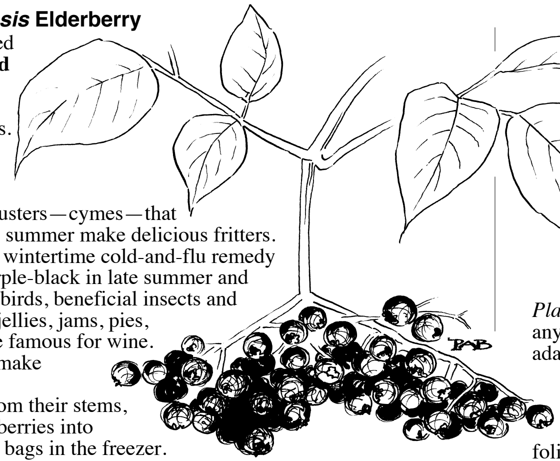


Seedlings or cultivars?

Named plants, such as 'Red Sprite' Winterberry, 'Adams No. 1' Elderberry and 'Mango Tango' Potentilla are propagated by cuttings. These **cultivars** have desirable traits that propagators seek to replicate, such as plant size or shape, fruit quality or flower color. If you want a small-statured winterberry for example, you know you'll get one every time if you plant a Red Sprite. Seedlings, on the other hand, do not generally come true to type. They are random expressions with lots of variation. Although they will show similarities with others of their species, each will be unique.

We don't sell lilac seedlings because most customers want to know if their lilac is going to be purple or white or pink or blue. To ensure you get the color you want, we offer cultivars, propagated asexually, in the case of lilacs, by cuttings. Other cultivars, such as crabapples and tree fruit, we propagate by grafting. Still others, by root division. But we also offer many plants grown from seed. These **seedlings** include the conifers, oaks, maples, peashrub, bayberries and more. All will vary in size and shape and color. These genetically diverse plant populations add interest as well as pest- and disease-resistance to the landscape. More plants from seed may mean a healthier ecosystem. Usually, when making plant medicine, the most effective product comes from seedlings: the plain species, not cultivars. Seedlings are usually much less expensive as well!

Fedco offers cultivars when we think we should, and seedlings whenever we can. "Variety is the spice of life!" We will continue to help create a diverse landscape while remaining aware that you may want to know that your roses will be red and your violets blue.



***Sambucus canadensis* Elderberry** 6-12' x same. Also called **Sweet** or **Black-Berried Elder**. Broad vigorous multi-stemmed shrub with spreading branches. This amazing plant has more attributes than we can list! The large creamy-white flower clusters—cymes—that cover the shrub in early summer make delicious fritters. Dry them for a fragrant wintertime cold-and-flu remedy tea. Berries ripen to purple-black in late summer and attract many species of birds, beneficial insects and other wildlife. Used in jellies, jams, pies, cordials, elixirs, and are famous for wine. Pickle green berries to make "capers."

To remove berries from their stems, pack entire panicles of berries into plastic bags and put the bags in the freezer. Once frozen, remove and whack the bag with a stick. The berries will easily fall from the stems. Snip a hole in the corner of the bag and the berries will roll out. Freezing will not damage the fruit.

Best grown in moist rich soil. Loves compost. Free from diseases and insects. Considered self-pollinating but plant more than one for better fruiting. This year all of our stock was propagated in Maine! Native to North America and widely distributed. Z3.

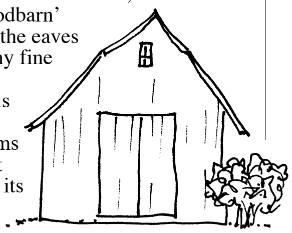
***S. c.* 'Adams No. 1'** NY State Ag Experiment Station introduction, 1926. Large berries and fruit clusters make for easy and fast picking. If you're heading to a potluck and need to make a pie in a pinch, Adams is the shrub you want. Excellent for preserving and not bad fresh-eating. Very large vigorous strong productive bush. In one of our Maine nurseries, this variety was the mother of all elderberries, reaching 12' in height and the same across. It lived for many years as the centerpiece in the garden and provided a year's worth of berries every season. Selected in 1915 from the wild by William Adams in Union Springs and sent to Geneva where it was introduced 11 years later. **ME Grown**.

371A Adams No. 1 Elderberry, $16.00

***S. c.* 'Fryeburg Intervale'** Fedco introduction, 2013. Not a distinct variety, but an ecotype. Selected and propagated by Ryan Bushell of Burnt Meadow Nursery, Brownfield, ME, using cuttings he collected from multiple Saco River flood plain plants located in the hedgerows and uncultivated areas of the Fryeburg Intervale. Plants produce large clusters of berries causing branches to arch under their weight. Somewhat compact habit, often being wider than tall. Expect variability as cuttings were selected from multiple plants. Much cold air drains down the Saco River valley, and temperatures have gone as low as –35° recent years. These plants should be very hardy. Jen reports that they are prolifically setting fruit in their second year in the nursery. **ME Grown**.

372A Fryeburg Intervale Elderberry, $16.00

***S. c.* 'Goodbarn'** Chance seedling. Elwyn Meader introduction, Rochester, NH. Professor Meader named this 'Goodbarn' because it was the good elderberry growing under the eaves of his barn in New Hampshire. Another of the many fine plants that Elwyn's son John has brought to our attention over the years. Thanks, John! Goodbarn is thought to be a polyploid form with unusual hardiness, vigor and apparent self-fertility. It blooms heavily and produces large crops annually. What it lacks in commercial fruit size it makes up for with its impressive productivity. **ME Grown**.



373A Goodbarn Elderberry, $16.00

***S. c.* 'Johns'** (Adams No. 1 or Adams No. 2 x open-pollinated) Nova Scotia Exp Stn, 1954. Very vigorous, up to 10' tall. One particular cutting in Jen's nursery grew five feet in one summer and had berries and flowers at the same time late into the summer! Foliage darker than that of other cultivars. **ME Grown**.

374A Johns Elderberry, $16.00

***S. c.* 'York'** (Ezyoff x Adams No. 2) NY Ag Exp Station, 1964. Considered by some to be the largest-fruited and heaviest-bearing cultivar. In most of our Maine trials, this shrub is more compact than Adams, topping out at 4–5', but we've seen a 10' specimen growing on a compost pile! Persistent and will bear well for many years alongside other varieties. Heavy clusters of mildly tart large berries that ripen after Adams are easy to pick and excellent for jam, jelly, wine and pie. Bright green foliage on a rounded shrub. An old reliable worthy of every enthusiast's collection. **ME Grown**.

375A York Elderberry, $16.00

Plant Sizes

All of our woody plants are well-rooted bare-root plants, approximately 1–3' tall, unless otherwise noted. Some shrubs will be a bit shorter than these specs and some hardwoods will be much taller. Because of the nature of dealing with living commodities, size variations will naturally occur within each crop.

***Sorbus alnifolia* Korean Mountain Ash** 30-50' x 20-30' Small rounded multi-trunked ornamental tree valuable as a habitat for birds and beneficial insects. Different from the typical mountain ash you see on neighborhood lawns. Leaves are alternate deeply-ribbed bluish-green, reminiscent of elm or alder. Showy bright white umbel-like blossoms in spring attract a host of pollinators, improving pollination for all the fruiting trees nearby. Spectacular fall show of small scarlet berries, excellent for bird forage or a very decent jelly. Orange to scarlet-purple fall foliage. Smooth silvery-grey bark, highlighted with a diamond pattern of light grey and pink fissures. Plant it as a specimen where it can be seen. In his classic *Manual of Woody Landscape Plants*, Michael Dirr calls this "the best of the mountain ash." Will thrive in any well-drained soil. Prefers some shade. Insect and disease resistant, pH adaptable. Native to eastern Asia. Z3. **ME Grown**.

376A Korean Mountain Ash, $14.00

***Spirea* x *bumalda* 'Crispa' Crisp Leaf Spirea** 2x3' Compact rounded shrub has unusual frilly crinkled deeply incised vibrant pink foliage. Burgundy-pink flowers bloom on new growth. If you prune off the first flush of spent flowers in late June, you'll have a recurrent bloom right through to the end of the season. Easy to grow in a range of conditions; sand or clay. May sucker a bit but will not take over or become out of control. Resilient and rugged, salt and drought tolerant too. Doesn't even flinch at an insect. Disease resistant. Hardy to –40°. Z2.

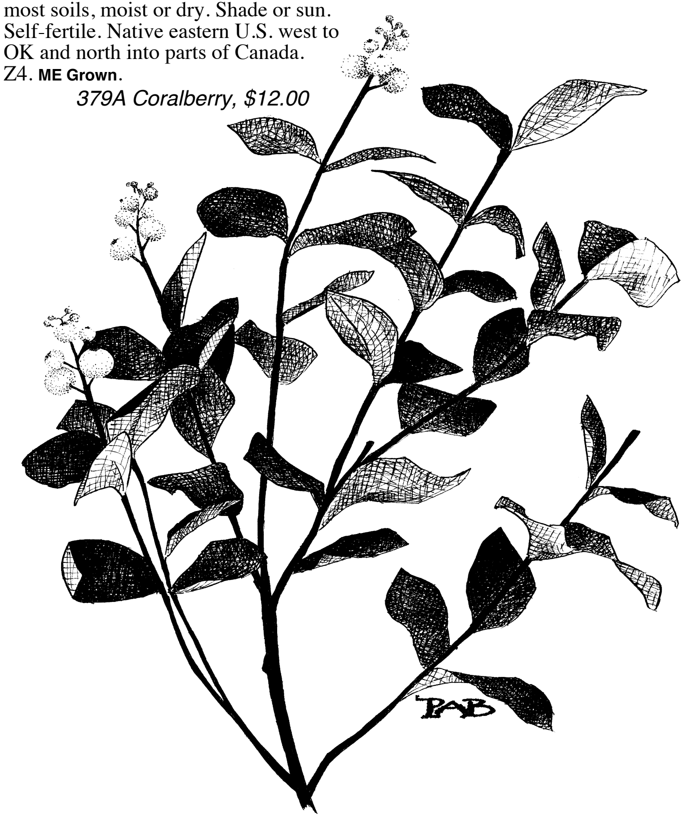
377A Crisp Leaf Spirea, $12.00

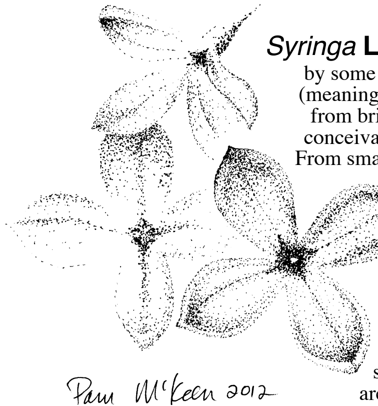
***Symphoricarpos albus* White Snowberry** 5-6' x same. Also called **Common Snowberry** or **Waxberry**. Broad rounded arching spreading wildlife and medicinal shrub. Inconspicuous pinkish flowers in late spring, followed by plump whitish edible but insipid berries. More palatable cooked, but still better for the birds who will scarf them up. Leaves, roots and bark all medicinal. Natives used it for arrow shafts, brooms and pipestems. Ripple-edged foliage of muted multi-shaded blues and greens. Quite beautiful all season. Excellent for holding soil on a steep shady moist bank and providing good wildlife cover and forage at the same time. Will spread with age and eventually form colonies. Easy to transplant, adaptable to most soils, sun or shade, even clay and city conditions. Self-fertile. Drought tolerant. Native eastern U.S. south to VA. Z3. **ME Grown**.

378A White Snowberry, $12.00

***S. orbiculatus* Coralberry** 3-5' x 4-8' Also called **Red Snowberry**, **Buckbrush**, **Indian Currant** and **Devil's Shoestring**. Low-growing spreading arching shrub. A good wildlife plant for banks and hillsides. Like the white snowberry, the fruit is edible though not widely used and the bark and foliage are medicinal. Dense clusters of small pinkish or purplish-green flowers in early summer followed by clusters of small purple-red berries that persist into winter. Will attract insects, bees and birds. Cut berry-laden stems for a beautiful winter arrangement. Some say unattractive to deer, but others say otherwise (hence the name Buckbrush). Red fall foliage. Adaptable to most soils, moist or dry. Shade or sun. Self-fertile. Native eastern U.S. west to OK and north into parts of Canada. Z4. **ME Grown**.

379A Coralberry, $12.00





***Syringa* Lilac** is known nearly everywhere by some variation of the Persian word *lilak* (meaning 'bluish'), but lilacs actually range from brilliant white to pink to red to every conceivable shade of purple and even blue. From small shrubs to large shrubs and trees, compact vase-shaped specimens to huge rounded spreading masses, only the crabapple offers a greater selection among ornamental woody plants. Twenty-three species make up the genus *Syringa*, two of which are native to the limestone mountains of southeastern Europe, while the rest are native to the temperate Far East.

Although primarily known as ornamental, the lilac is also edible and medicinal and can even be used as a dye plant. Some recommend the flowers for fritters à la elderberry or black locust. Also traditionally used for treating kidney disease and malaria. The bark, branches and foliage have been used for reducing fevers. The flowers make a wonderfully fragrant wine.

In the landscape, lilacs are excellent alone or in hedges. Deep green glossy heart-shaped foliage looks good from spring through fall. Intensely fragrant blooms in May over a period of several weeks.

As with roses and crabapples, we vary our list each year to give you a wide selection. If you have suggestions for cultivars you'd like us to offer in the future, please let us know. (2-yr well-rooted transplants)

***S. v.* Common Purple** 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years. When a nursery friend looked out our living room window and thought we had some fancy new cultivar, I chuckled, "Nope, just the good old common purple." Never a disappointment. Suckers freely, the best lilac for a spreading hedge. Z2. **ME Grown**.

380A Common Purple Lilac, $13.50

***S. v.* 'Arch McKean'** 7x8' ('Agincourt Beauty' x 'Rochester') John Fiala intro, 1984. Rich reddish-purple buds and very large single showy upright silvery-magenta blooms. When I observed this lilac at the Arnold Arboretum a few years ago my notes say "dark purple." This spring I'm more inclined to call it reddish purple or magenta. It is definitely darker than most lilacs and contrasts wonderfully with any of the whites or lavenders. Non-suckering. Z4. **ME Grown**.

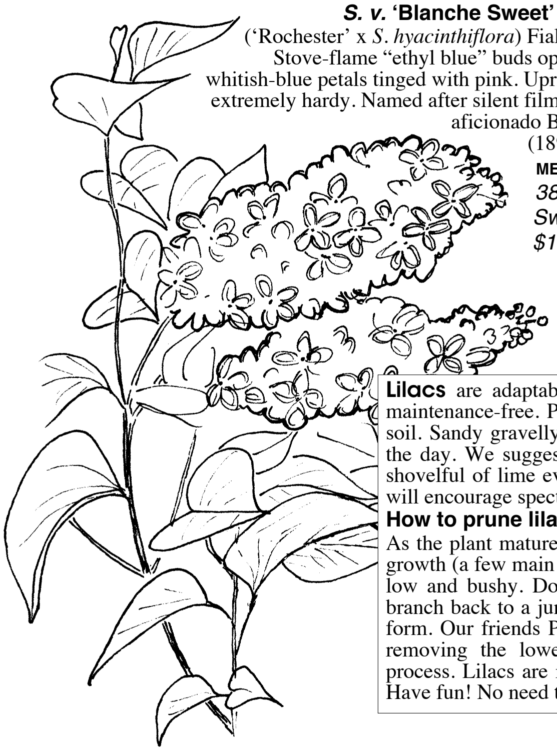
381A Arch McKean Lilac, $13.50

***S. v.* 'Atheline Wilbur'** 10x10' [('Rochester' x 'Edward J. Gardner') x 'Rochester'] Fiala intro, 1980. Very fragrant large ragged floppy panicles of true pink. The buds are a darker rose-lavender punctuating the soft color of the blooms themselves. There may be a hint of lavender in there, but only a hint. Very nice. A connoisseur friend commented, "It could fade to white, but it doesn't!" Z3/4. **ME Grown**.

382A Atheline Wilbur Lilac, $13.50

***S. v.* 'Blanche Sweet'** 8-10' x same. ('Rochester' x *S. hyacinthiflora*) Fiala intro, 1988. Stove-flame "ethyl blue" buds open to fragrant whitish-blue petals tinged with pink. Upright habit and extremely hardy. Named after silent film star and lilac aficionado Blanche Sweet (1896-1986). Z2. **ME Grown**.

383A Blanche Sweet Lilac, $13.50



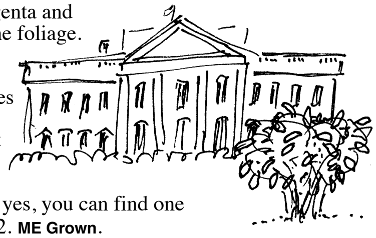
***S. v.* 'Declaration'** 8x6' (*S. v.* 'Sweet Charity' x *S. h.* 'Pocahontas') Don Ergolf selection, U.S. Arboretum intro, 1978. Fragrant dark reddish-purple inflorescences. Large clusters can reach 15" in length. We declare, that's amazingly long! Early bloomer, about a week before most lilacs. Lovely as a cut flower. Upright form. Z2. **ME Grown**.

384A Declaration Lilac, $13.50

***S.* x *prestoniae* 'Donald Wyman'** 8-10' x same. (*S. reflexa* x *S. villosa*) Introduced by FL Skinner, Manitoba, Canada. Unique spicy-scented deep pinkish-red buds and pink flowers on large pyramidal spikes. Blooms two weeks after the common lilacs. It's always a surprise to smell the Donald Wyman out in the yard. I look around in disbelief and there it is! Originally developed in the 1920s in Ottawa by Isabella Preston, and is considered the best of the Preston hybrids. Named for a former director of Arnold Arboretum, one of America's greatest horticulturists. Upright, dense form. Extremely hardy. Z2. **ME Grown**.

385A Donald Wyman Lilac, $13.50

***S. v.* 'Dwight D Eisenhower'** ('Rochester' x unknown) Richard Fenicchia, 1969. Pale blue panicles washed in lavender. Unopened buds are magenta and make a striking contrast against the foliage. Individual flowers are single but multi-petaled, having 5–7 petals instead of the usual 4, which makes the panicles look fluffy. Lilac breeder Father John Fiala called it "ranking among the finest blues thus far produced." Named for the 34th commander in chief and, yes, you can find one growing on White House lawn. Z2. **ME Grown**.



386A Dwight D Eisenhower Lilac, $13.50

***S. v.* 'Fiala Remembrance'** 8-10 x 5-10' Dr. Joel Margaretten intro, 1991. Lemony-white buds open to fully double florets of pure snowy white. Prolific bloomer flowers early. Named in honor of John Fiala, renowned lilac breeder and founder of the International Lilac Society. Fiala's work spanned four decades, producing 85 new cultivars many of which are Fedco favorites. Z2/3. **ME Grown**.

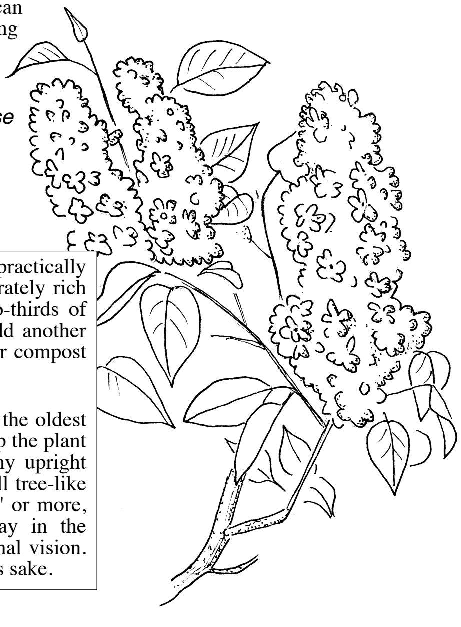
387A Fiala Remembrance, $13.50

***S. v.* 'Mme Lemoine'** 12x12' ('Marie Legraye' x open pollinated) Victor Lemoine et Fils, Nancy, France, 1890. Mme Lemoine is the standard by which other white lilacs are judged. Creamy buds open to very fragrant large double white flowers in clusters so thick, the shrub looks like one massive bloom. Upright spreading habit. Blooms with other vulgaris lilacs and provides a beautiful accent for the pinks and purples. A favorite of the late plantsman Roger Luce of Newburgh, ME, who maintained a magnificent collection of lilacs and was a beloved mentor to many of us. Z3. **ME Grown**.

388A Mme Lemoine Lilac, $13.50

***Syringa reticulata* Japanese Tree Lilac** 20-30' x 15-25' Small rounded irregular flowering tree "cousin" of the shrub lilacs. A common sight in most Maine towns for generations. In recent years they've been gaining in popularity. In the right spot they are a lovely small tree. Large lacy triangular creamy-white panicles perch vibrantly above the canopy of dark green foliage. Their wonderful fragrance is reminiscent of almond extract. Blooms a good month after the shrub lilacs. Reddish brown cherry-like bark is grooved and checked. Beautiful as a specimen or in groups. Full sun to partial shade and well-drained soil, with a pH of 6.5–8. Resistant to lilac borers and powdery mildew. Salt- and drought-tolerant. Requires no pruning or fertilizing as far as I can tell. I haven't done a thing to ours and it looks great. Native of Japan. Z3. **ME Grown**.

389A Japanese Tree Lilac, $13.50

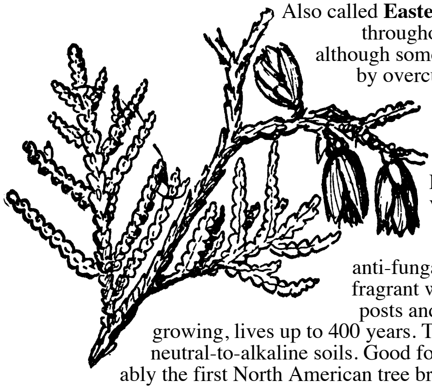


Lilacs are adaptable, easy to grow, nearly indestructible and practically maintenance-free. Plant them in a well-drained location in moderately rich soil. Sandy gravelly loam is perfect. They prefer sun at least two-thirds of the day. We suggest planting them with a shovelful of lime. Add another shovelful of lime every three years. A yearly mulch of manure or compost will encourage spectacular annual blooming.

How to prune lilacs

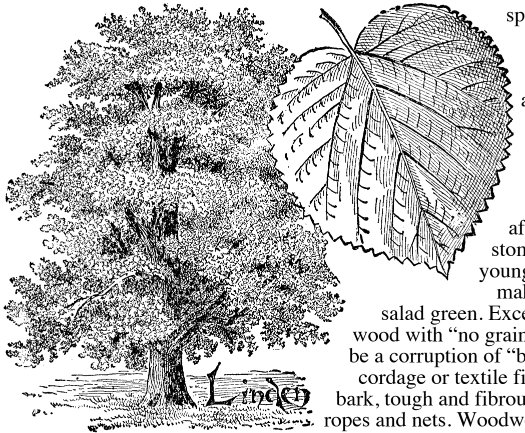
As the plant matures, prune off a quarter of the new suckers and the oldest growth (a few main stems each year). Some growers prefer to keep the plant low and bushy. Do so by "topping" it off every year: prune any upright branch back to a junction with a lower branch. Others perfer a tall tree-like form. Our friends Philippe and Danielle have let theirs soar to 8' or more, removing the lower branches and creating a magical walkway in the process. Lilacs are more than willing to cater to your own personal vision. Have fun! No need to cut off spent flowers except for appearance's sake.

Thuja occidentalis **Arborvitae** 20-60' Arborvitae means tree of life. Also called **Eastern White Cedar**. Common throughout the entire state of Maine although some stands have been depleted by overcutting. Narrow and tall with twiggy branches, soft fibrous orange-brown bark, and flat foliage unlike that of any other conifer. Foliage and bark tea high in vitamin C. Foliage tea helpful in infections, twig decoction makes an anti-viral anti-fungal skin wash. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow growing, lives up to 400 years. Thrives in rich moist marshy neutral-to-alkaline soils. Good for screens and hedges. Probably the first North American tree brought to Europe. A favorite browse of deer. Pruning limbs and leaving them on the ground during a harsh winter helps sustain these animals and is a long-practiced tradition amongst natives care-taking the forests of Maine. Grown in Maine. Z2. (9-18")



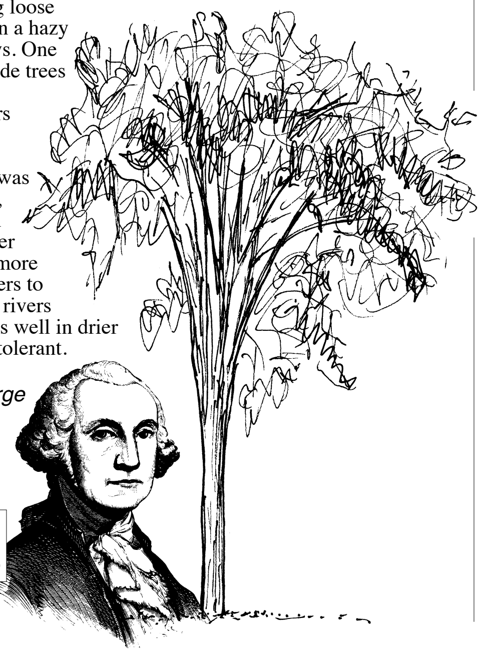
390A American Arborvitae, bundle of 5 for $15.00

Tilia americana **American Linden** 60-80' x same. Also known as **Basswood** and **Butterwood**. Tall stately tree with rounded crown and numerous low-hung spreading branches. Sweetly fragrant yellow June flowers will attract all the bees in the neighborhood, are reputed to make the best honey, and also make a popular after-dinner tea and stomach remedy. The young half-size foliage makes a high-quality salad green. Excellent soft carving wood with “no grain.” The name may be a corruption of “bastwood.” Bast is cordage or textile fiber, and the inner bark, tough and fibrous, can be used for ropes and nets. Woodworkers love to use a small piece of the inner bark as a “glue brush.” Yellow fall color. Prefers deep rich moist soils with a pH slightly alkaline. Full sun or partial shade. Sensitive to salt and pollution. May live for 900 years. Native from New Brunswick to VA. Z3. **ME Grown.**



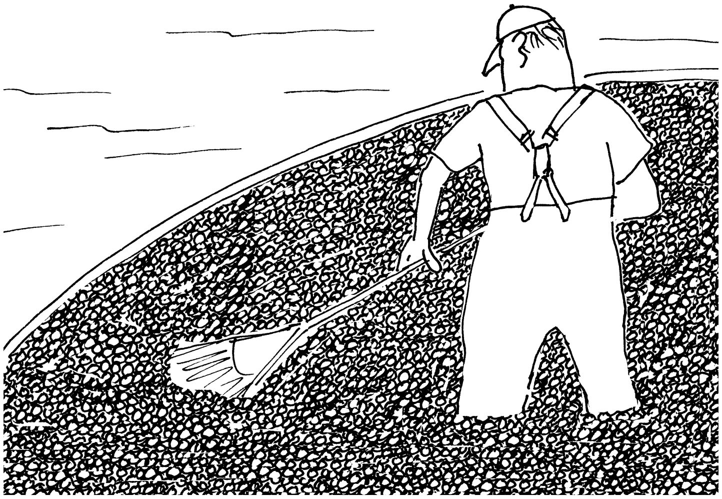
391A American Linden, $13.00

Ulmus americana **‘Valley Forge’ American Elm** 60x70' US National Arboretum introduction, 1995. Large fast-growing graceful native once lined virtually every street in New England but declined dramatically due to Dutch elm disease. At maturity the trunk can reach 4' in diameter with a immense vase-shaped canopy. Long loose branches blow and sway in a hazy breeze on hot summer days. One of the most wonderful shade trees for northern climates. Fortunately, in recent years several disease-resistant cultivars have been introduced. Valley Forge was selected in Delaware, OH, by AM Townsend and LR Schreiber and released after 20 years of testing. Plant more elms! Soil adaptable, prefers to grow in moist areas along rivers and streams but also grows well in drier places. Salt- and drought-tolerant. Z4.

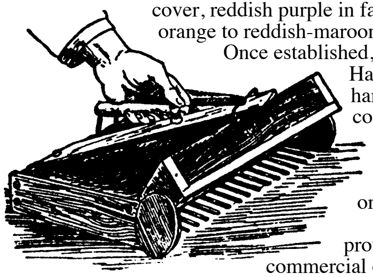


392A Valley Forge American Elm, $25.00

ME Grown = grown in Maine by a member of the Fedco growers coop



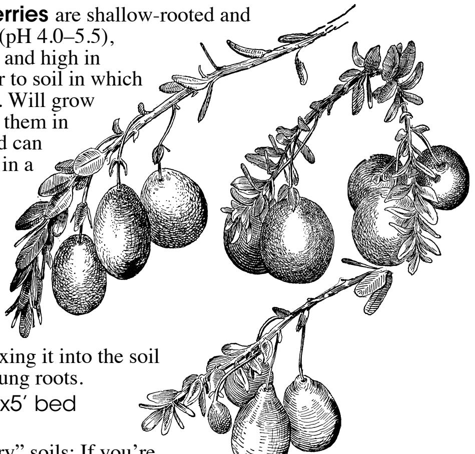
Vaccinium macrocarpon **American Cranberry** This is the cranberry of holiday sauces, bread and jelly. Dense low lustrous evergreen ground cover, reddish purple in fall and loaded with 1/2" light yellow to orange to reddish-maroon berries that color more after harvest. Once established, makes a beautiful and edible “lawn.” Handpick or rake like blueberries before hard frost. Use fresh, freeze or store in a cool basement or root cellar for months. Berries are a well-known UTI remedy. Requires acidic soil, preferably cool, moist and high in organic matter, though will grow in dry locations. Annually flooded for frost protection and harvesting convenience in commercial operations, but not necessary in home plots. Native to northeastern U.S. and Canada. Self-fertile. 10 plants will fill a 5x5' bed. Z2. **ME Grown.** (plugs)



L393A American Cranberry, bundle of 10, $22.00

American Cranberries are shallow-rooted and require light acid soil (pH 4.0–5.5), preferably cool, moist and high in organic matter, similar to soil in which blueberries grow well. Will grow in dry locations. Plant them in spring once the ground can be worked in a bed or in a naturalized setting.

We no longer recommend mixing in sulfur to acidify the soil. Sulfur is slow-acting and can be added to soil surface in subsequent years if necessary. Mixing it into the soil can damage tender young roots.



Instructions for a 5x5′ bed (10 plants):

For acidic “blueberry” soils: If you’re fortunate to have a site where blueberries grow naturally, clear a spot of vegetation, cultivate the soil, add some peat and sand if you like, and you’re ready to plant.

Sandy soils: Remove soil 10" deep and mix soil with 2 bales of damp peat moss. Replace mixture in bed and cover with 2" of sand.

Clay or silty soils: Remove soil 10" deep and place it around the edge of the bed as a berm. Replace the soil with a 50-50 mix of soil and peat (about 2 bales of peat). Cover with an additional 2" of sand. Plant cranberries 12" apart, so the roots are in the peat and the sand is covering the lower portion of the stems.

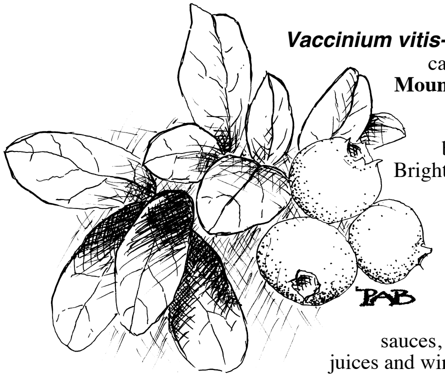
Remove all weeds as needed. Water the plants weekly so that the peat is moist but not saturated. Add nitrogen at a rate of 1/3–1 lb (or 20–50 lbs of manure) per 100 sq feet each year. No pesticides should be necessary.

Handpick before first hard frost when berries are red.

In late fall, cover the bed to protect the plants from the drying effect of winter winds. Use a mulch of leaves or pine needles; or cover with polyester row cover and then clear plastic; or cover with row cover and then plenty of leaves. If you use row cover or plastic, you may want to bait for mice under the plastic.

Remove mulch in early April. Protect flower buds from 28° frosts by covering with plastic during frosty nights.

Every two years partially cover the plants with a 1/2–1" layer of sand in spring before growth begins. This will help produce more berries and keep weeds down.



***Vaccinium vitis-idaea* Lingonberry** Also called **Foxberry**, **Cowberry**, **Mountain Cranberry**. Vigorous shallow-rooted spreading groundcover is related to blueberries and cranberries. Bright red glossy nutritious fruits are slightly smaller than lowbush blueberries. Tart until dead ripe, then has excellent flavor, richer and less astringent than cranberries. Can be eaten fresh but primarily used in sauces, jams, syrups, fruit leathers, juices and wines. Small shiny dark green foliage is quite lovely. Adorable tiny bell-shaped white flowers in spring attract a plethora of pollinators. Extremely popular in Scandinavia and now catching on in the U.S. If you've got good soil for blueberries, try these. Ripens in late summer but is best after a frost. Harvest by hand or with a blueberry rake. Will produce 1–2 lbs per plant depending on the variety and can produce for up to 20 years. Stores up to 2 months in the fridge. Prefers full sun and poor sandy acid (pH 4.5–5) soils. Plant 12–18" apart in rows 3–4' apart. Incredibly tough and very hardy. To ensure good fruit production, plant more than one variety. Native to the colder northern hemisphere. Z2. (plugs)

***V. v.-i.* 'Erntesegen'** 12-15" Originated in Germany. High-yielding upright plant produces very large berries. Slightly acid sweet fruit.

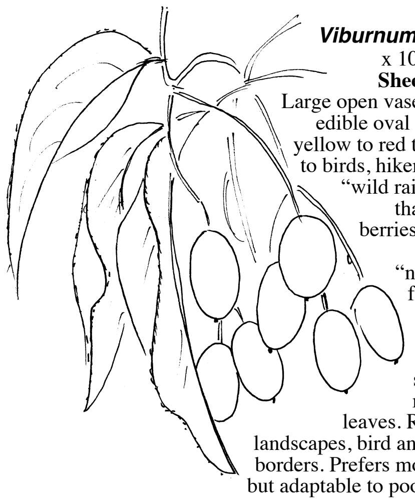
L394A Erntesegen Lingonberry, $7.00

***V. v.-i.* 'Red Pearl'** 12-18" Introduced by Elden Stang, Holland, 1983. Very adaptable fast-growing upright plant produces large berries and can yield up to 1$^{1}/_{2}$ pounds of fruit. Lower yielding than others but standard in commercial production as an excellent pollinator.

L395A Red Pearl Lingonberry, $7.00

***V. v.-i.* 'Regal'** 8-15" WI-108, Univ of Wisconsin intro, Madison, WI, 1994. From open-pollinated seed collected in southwest Finland. Highly ornamental upright plant produces small to medium firm berries with good flavor. Lower yielding than other varieties but vigorous and easily transplanted.

L396A Regal Lingonberry, $7.00



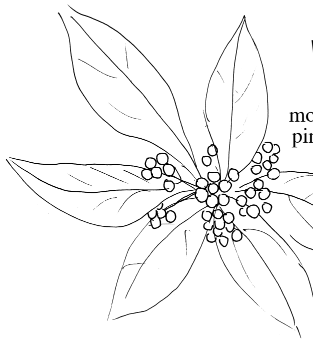
***Viburnum lentago* Nannyberry** 8-30' x 10-12' Also called **Wild Raisin**, **Sheepberry** or **Sweet Viburnum**. Large open vase-shaped suckering shrub with edible oval berries that turn from green to yellow to red to blue-black raisins, available to birds, hikers and skiers all winter. Called "wild raisin" because they taste best in that dried stage. Try cooking the berries with a small amount of water and then use the resulting "nanny-butter" as a sauce and in fruit leather. Or simply add the shriveled raisins to your oatmeal. Large clusters of fragrant white flowers in spring. Shiny foliage, purplish red in fall. Medicinal bark and leaves. Recommended for naturalizing landscapes, bird and wildlife habitat, screens and borders. Prefers moist well-drained average soils but adaptable to poor compacted or dry soils. Full sun to partial shade. pH adaptable. Self-fertile, but plant two or more to ensure pollination. Native to eastern U.S. and Canada. Extremely hardy. Z2. **ME Grown**.

397A Nannyberry Viburnum, $13.00

***V. nudum* Possumhaw** 5-12' x same. Also called **Smooth Witherod**. Beautiful fruiting ornamental with striking displays of multi-colored berries against glossy dark green foliage. In late April to early May, pie-shaped clusters of showy fragrant white flowers are followed by vibrant pink and blue fruits in summer which persist after leaf drop. Fruits are edible but highly acidic and probably best for wildlife. Nectar and berries attract butterflies, bees and songbirds. Rounded multi-stemmed upright spreading shrub. Low maintenance, adaptable, prefers medium to wet soils, full sun to partial shade. Makes an excellent hedge or pond border. Native species found in the low woodlands and bogs of the eastern U.S. Z4.

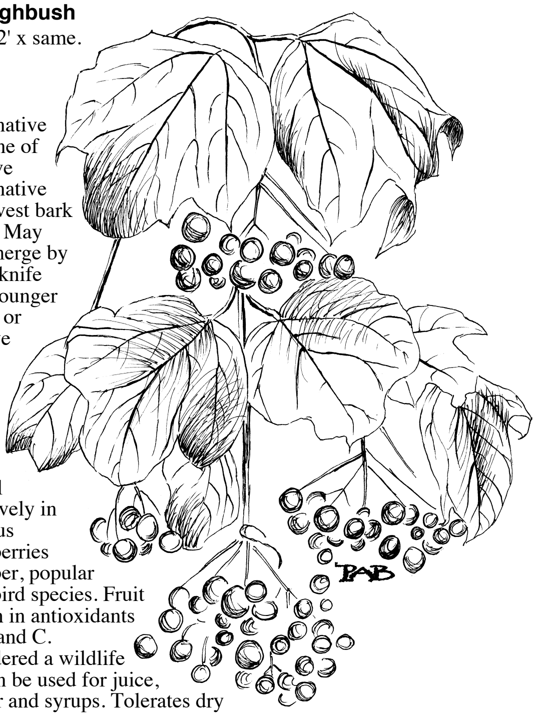
***V. n.* 'Brandywine'** Mark Bulk intro, Boskoop, Netherlands. Autumn foliage is maroon to purple-red. More compact habit than Winterthur. Self-fruitful but group plantings will enhance fruit display. Winterthur requires this as a pollinator. **ME Grown**.

398A Brandywine Viburnum, $15.00



***V. n.* 'Winterthur'** Winterthur Gardens intro, Delaware, 1991. Award-winning cultivar similar to Brandywine but a bit more extravagant. Berries turn pink to deep pink to blue to purple-black in phenomenal polychromic clusters described by Tim Wood as "more showy than Donny Osmond's dreamcoat." Needs Brandywine for pollination. **ME Grown**.

399A Winterthur Viburnum, $15.00



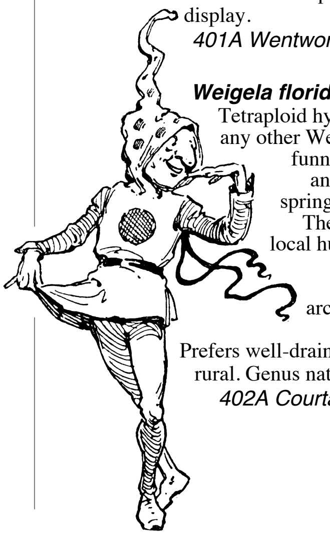
***V. trilobum* Highbush Cranberry** 8-12' x same. Also known as **Crampbark**. Medicinal multi-stemmed native shrub. Bark is one of the most effective anti-spasmodic native medicinals. Harvest bark in April or early May before leaves emerge by running a sharp knife down the long younger stems. Make tea or tincture to relieve cramping and muscle tension of various sorts. Clusters of 4" flat white flowers in May attract beneficial insects. Quite lovely in bloom. Pendulous bunches of red berries ripen mid-October, popular with dozens of bird species. Fruit is extremely rich in antioxidants and vitamins A and C. Although considered a wildlife plant, berries can be used for juice, jam, fruit leather and syrups. Tolerates dry soils that are high in organic matter, but prefers rich moist well-drained soils, sun or shade. Good for screens and hedges. Soil pH 6–7. Susceptible to viburnum leaf beetle; check with your local extension office or nursery to determine if this could be a problem. Not a bog cranberry. Native to northeast U.S. and Canada. Self-pollinating. Z2.

***V. t.* Seedlings** Add to the biological diversity of your garden. No two seedlings are exactly alike. Not only is it fun and exciting to see what you get, it allows nature the opportunity to develop resistance and durability to insects and disease. **ME Grown**.

400A Seedling Highbush Cranberry, $13.50

***V. t.* 'Wentworth'** Selected in the early 1900s for heavy fruit set. Named after OE Wentworth of Lancaster, NH, where the original shrub was found. Fruit ripens to vibrant scarlet red, slightly earlier than other trilobums. Leaves turn deep red in the fall, giving it a lustrous autumn display.

401A Wentworth Highbush Cranberry, $14.00



***Weigela florida* 'Courtalor' Carnaval Weigela** 4-5' x 3-5' Tetraploid hybrid, France. This recent introduction is unlike any other Weigela. It features amazing multicolored tubular funnel-shaped azalea-like blooms. White-with-pink and pink-with-red flowers last for a month in late spring and early summer, longer than most weigelas. The more sun, the more bloom. Will attract all the local hummingbirds. Forest-green foliage with yellow fall color. Compact dense rounded slightly vase-shaped summer-flowering shrub that may arch to the ground. Excellent in borders or groups but best as a specimen. Prune after it blooms. Prefers well-drained soil but thrives in most conditions, urban or rural. Genus native to eastern Asia. Z4 maybe Z3.

402A Courtalor Weigela, $12.00

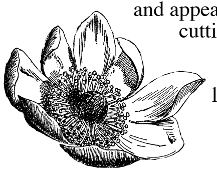
ME Grown = grown in Maine by a member of the Fedco growers coop

Tender Summer Bulbs Spring-planted bulbs offer wonderful variety to the cutflower market and are a staple in old-fashioned gardens. Once upon a time, back roads beckoned my mother to spend many a summer Sunday in search of the best deal on roadside dahlias, glads and lilies. Every few miles she would find buckets brimmed with blooms for 10¢ a stem. Nowadays it's more like $1. Spring-planted bulbs are not hardy to northern climes. Smart and thrifty people lift and store them over the winter (details below right); the rest of us treat them as annuals.

Acidanthera murielae **Fragrant Gladiolus** or **Ethiopian Gladiolus** produces sword-like foliage topped by wonderfully scented star-shaped 2" white flowers with mahogany-purple centers on arching stems. Beautiful in the garden or as a cutflower. 24" tall. Culture like gladiolus. Has been named *Gladiolus callianthus* for many years; we ought to switch it.

L501A*: 10 for $3.50*
L501B*: 20 for $5.50*
L501C*: 50 for $12.00*

Anemone coronaria **De Caen mix Anemone** or **Windflower** Charming single flowers 1–3" wide are dark purple-blue, red, rose or white and appear in early summer. Good for borders, containers and cutting. Keep moist during the growing season. Soak the knobby tubers in water 24 hours before early spring planting. Plant in full sun, 1–2" deep, 4–8" apart in light sandy soil. 8–10" tall.



L502A*: 10 for $4.25*
L502B*: 20 for $7.25*
L502C*: 50 for $15.50*

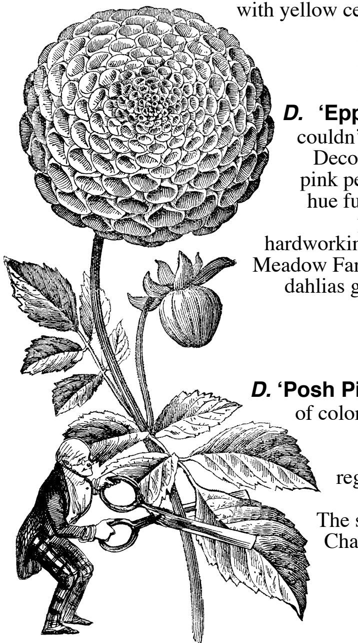
***Crocosmia* x *crocosmiiflora* 'Lucifer'** glows in the garden! Makes a long-lasting cutflower. Midsummer sprays of bright red flowers open from bottom to top on long arching flower stalks, like bursts of flame above gladiolus-like foliage. *Lucifer* means *light-bearing* in Latin and refers to the blossoms' resemblance to lighted matches. Grows well in pots. Plant in full sun, 3" deep, 3" apart in moist well-drained soil. 24–36" tall.

L503A*: 10 for $4.00*
L503B*: 20 for $7.50*
L503C*: 50 for $15.00*

Dahlia provides endless displays of gorgeous blossoms in a vast array of sizes, shapes and colors—providing steady blooms from midsummer till frost—adding incredible late-season value to the cutting garden. Native to hot parts of the Americas and first developed as a food crop, ornamental dahlias are descended from years of breeding and hybridizing *D. pinnata* and *D. juarezi*. Planting instructions below.

***D.* 'Akita'** Vivid triple-toned 6" dinnerplate blooms are deep orange-red with yellow centers and bright creamy tips. 3' tall.

L504A*: 1 for $5.00*
L504B*: 3 for $13.00*
L504C*: 6 for $23.00*

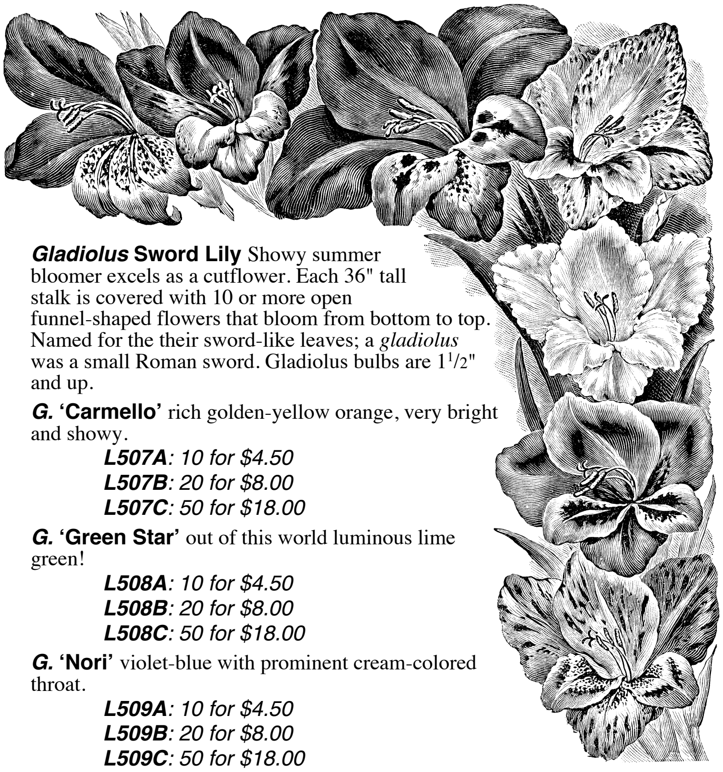


***D.* 'Epping Pink'** is so seductive we couldn't bring ourselves to bury it in a mix. Decorative 4" blossoms have soft dreamy pink petals honeyed with a delicate creamy hue fused throughout. Pure elegance! This year's stock is brought to you by the hardworking Brett and Jennifer Irving of Chain Meadow Farm in Troy—whose fabulous field of dahlias glows with glorious color. **ME Grown.**

L505A*: 1 for $5.50*
L505B*: 3 for $14.75*
L505C*: 6 for $26.00*

***D.* 'Posh Pinks' Mix** displays a spirited blend of color and form. A grand combination of solids, and bicolors, decoratives and dinnerplates. Colors range from rich regal pink, magenta fused with yellow, to white with a lavender-pink flush. The stock for this mix is once again from Chain Meadow Farm in Troy. **ME Grown.**

L506A*: 2 for $6.50*
L506B*: 4 for $11.00*
L506C*: 8 for $19.50*



Gladiolus **Sword Lily** Showy summer bloomer excels as a cutflower. Each 36" tall stalk is covered with 10 or more open funnel-shaped flowers that bloom from bottom to top. Named for the their sword-like leaves; a *gladiolus* was a small Roman sword. Gladiolus bulbs are 1$^1/_2$" and up.

***G.* 'Carmello'** rich golden-yellow orange, very bright and showy.

L507A*: 10 for $4.50*
L507B*: 20 for $8.00*
L507C*: 50 for $18.00*

***G.* 'Green Star'** out of this world luminous lime green!

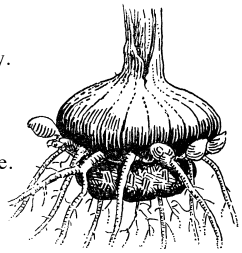
L508A*: 10 for $4.50*
L508B*: 20 for $8.00*
L508C*: 50 for $18.00*

***G.* 'Nori'** violet-blue with prominent cream-colored throat.

L509A*: 10 for $4.50*
L509B*: 20 for $8.00*
L509C*: 50 for $18.00*

***G.* 'Peter Pears'** brilliant orange with a darker orange throat.

L510A*: 10 for $4.50*
L510B*: 20 for $8.00*
L510C*: 50 for $18.00*



***G.* 'Plum Tart'** a dark purplish wine, very classy.

L511A*: 10 for $4.50*
L511B*: 20 for $8.00*
L511C*: 50 for $18.00*

***G.* 'White Prosperity'** clean, crisp classic white.

L512A*: 10 for $4.50*
L512B*: 20 for $8.00*
L512C*: 50 for $18.00*

***G.* 'Windsong'** bright pink with a yellow throat.

L513A*: 10 for $4.50*
L513B*: 20 for $8.00*
L513C*: 50 for $18.00*

***G.* 'Zorro'** deep, dark red with a hint of black.

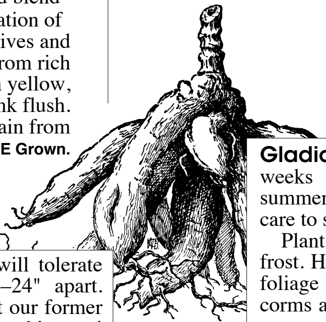
L514A*: 10 for $4.50*
L514B*: 20 for $8.00*
L514C*: 50 for $18.00*

Large-Flowering Glad Mix

L515A*: 10 for $4.00*
L515B*: 20 for $7.50*
L515C*: 50 for $15.50*

Overwintering Summer Bulbs Spring-planted summer-blooming bulbs, corms and tubers will not survive northern winters outdoors. To save them for next year, dig them up in the fall after the foliage dies, gently brush off any soil and debris, and dry them. Store somewhere dark and cool (40–50°) in dry peat or sawdust, then replant in spring. You can also grow them in pots and relocate as the weather dictates. Alternatively, treat them as annuals and compost them at the end of the season.

Dahlia Grows best with 3–4 hours of direct sun per day, but will tolerate conditions from full sun to light shade. Plant 3–4" deep, 12–24" apart. Conventional wisdom says to plant after danger of frost is past, but our former longtime grower in Massachusetts planted his tubers the same time as his peas! He believed early planting to be important and said the plants will recover if the first foliage is killed by frost. Dahlias often need staking, but close plantings can support each other. Because dahlia blooms are susceptible to insect damage, especially in the bud stage, think out a control program ahead of time. Watch out for tarnish bugs, leafhoppers and thrips. Frequently picking the flowers keeps some pests down.



Gladiolus Each stalk blooms for about a week, about 8 weeks after planting. Stagger plantings for flowers from summer to frost. Cut when 2–3 flowers have opened, taking care to spare the leaves which feed the developing corm.

Plant corms 4–6" deep and 6" apart after the last spring frost. Hilling or staking may be needed if their sword-shaped foliage and 3–4' flower spikes get top heavy. Dig up the corms after the tops have died, discard the old one, clean the new one, dry, and store loose (no peat) in a cool dry place.

Thrips are a problem for glads, and infestations—indicated by yellowing and spotted foliage—are aggravated by water stress. Be prepared lest they harm your plants and prevent flowering. Consider a control program —possibilities include insecticidal soap, garlic, pyrethrum or rotenone—to use at the first sign of infestation.

***Ranunculus* Hybrids Mix** Orange, white, yellow, pink, or red flowers resemble big double buttercups and bloom from late spring into summer, Good for borders, pots and cutting. Fern-like foliage. When Ranunculus appears at the florist in late winter, I go nuts and completely forget my budget! Before planting, soak tubers in water for several hours to several days. Plant in full sun, in moist well drained soil. Set 2–4" deep, 6" apart, claw side down. 12" tall.

__L516A__: 6 for $3.75
__L516B__: 12 for $6.75
__L516C__: 24 for $12.00

Herbaceous Perennial Plants

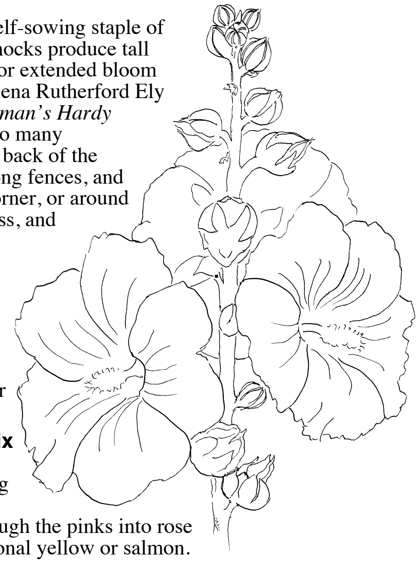
Most of the perennial plants we offer are hardy at least into Zone 4. USDA hardiness zone (chart on page 71) follows each description. The list is alphabetized by botanical name, in italics, followed by common name.

***Achillea millefolium* 'Saucy Seduction' Yarrow** Blooms June through September featuring 2–3" flat-topped flower heads with intense rosy-pink blossoms. Fern-like foliage is aromatic when crushed. Excellent for fresh and dried arrangements. We chose this cultivar for its compact, sturdy and robust habit and its appeal to beneficial insects. Prompt removal of faded flower heads guarantees a long season of blooms. Plant crowns 12–24" apart in full sun to partial shade. 12–24" tall. Z3.

__L517A__: 1 for $5.75
__L517B__: 3 for $15.75
__L517C__: 6 for $28.00

***Aconitum napellus* English Monkshood or Friar's Cap** Produces dense showy spikes of deep violet-blue helmet-shaped flowers above elegant palmate foliage in late summer. Grand delphinium-style blooms rarely need staking. An excellent cutflower—cut when $^1/_3$ to $^1/_2$ the spike is in bloom. I love watching bumblebees climb under the hood and completely disappear into the flowers then clamber out again covered with pollen. The entire plant is poisonous; wash your hands after handling or cutting. Prefers partial shade. Plant 15–20" apart in moist soil. 36–40" tall. Z3.

__L518A__: 1 for $3.50
__L518B__: 3 for $8.00
__L518C__: 6 for $14.00



***Alcea rosea* Hollyhock** Self-sowing staple of old-fashioned gardens, hollyhocks produce tall spires covered with flowers for extended bloom through July and August. Helena Rutherford Ely states in her 1903 book *A Woman's Hardy Garden*, "No one can have too many hollyhocks. Plant them at the back of the border, among shrubbery, along fences, and in good clumps in any odd corner, or around buildings; they are never amiss, and always beautiful." Officially perennial, hollyhocks can be short-lived, and unless otherwise noted, are best cultivated as biennials which readily self-sow once established in favorable conditions.Wind protection or staking is essential.

***A. r.* 'Chater's Double' Mix** Provides a spectacular excess of bloom with a showstopping array of fully double flowers. Colors range from white through the pinks into rose and burgundy with an occasional yellow or salmon. Plant in full sun, 12–18" apart in moist well-drained soil. 4–6' tall. Z3.

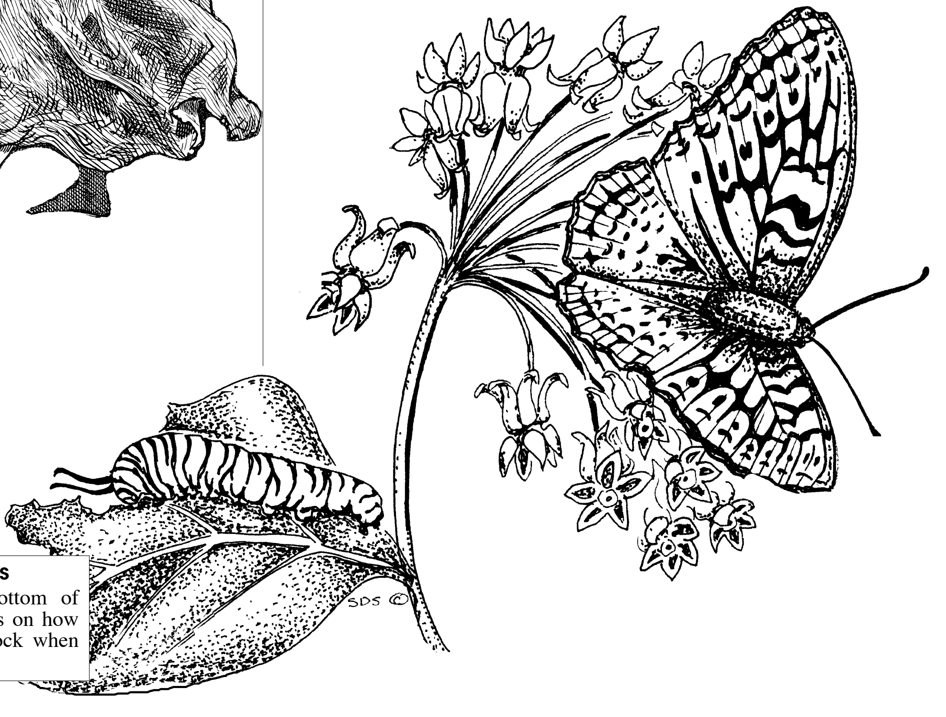
__L519A__: 1 for $4.25
__L519B__: 3 for $10.00
__L519C__: 6 for $18.00

***A. r.* 'Mars Magic'** Bring a vintage look back to your homestead with this classic single bright-red hollyhock. This cultivar from the Spotlight Series is truly perennial, not biennial like most Alceas on the market.

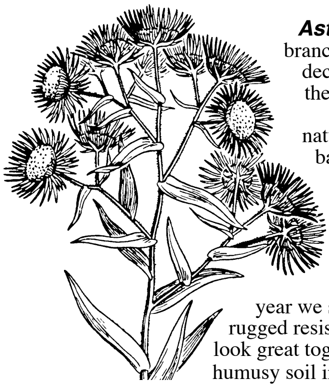
__L520A__: 1 for $3.75
__L520B__: 3 for $9.50
__L520C__: 6 for $17.00

***Asclepias tuberosa* Butterfly Weed** Undeniably the most brilliant summer wildflower in North America. Asclepias features vivid tangerine-orange clusters of flowers atop slender fuzzy stems, covered with green lance-shaped leaves. The blossoms are an important source of nectar for butterflies. Watch one of the miracles of summer unfold before your eyes as Monarchs lay their eggs on the leaves—a nutritious food source for the resulting caterpillars. Spent flowerheads transform into prominent spindle-shaped seed pods that make a unique addition to mixed bouquets. The fleshy taproot will not tolerate clay or low ground. Plant in full sun, 18–24" apart in well-drained fertile soil. 24" tall. This year's stock is MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. See page 70, Cultivating Sanctuary, for additional information. Z4. **ME Grown.**

__L522A__: 1 for $6.25
__L522B__: 3 for $16.00
__L522C__: 6 for $28.00



Planting instructions
Please refer to the bottom of page 70 for instructions on how to handle this plant stock when you receive it.



Aster **Starwort** or **Frost Flower** Freely branching sprays of brightly colored flowers decorate the autumn landscape throughout the Northeast. Asters add hardy grace to the back of the wild border, and will naturalize on banks or in the meadow. Cut back slightly in early-mid June to induce an abundance of $1^1/_2$–2" rayed blooms from late August into October. Deer don't usually eat them. The new-world asters have been moved out of the Aster genus, and are technically now *Symphyotrichum*. This year we selected two compact varieties for their rugged resistance to fierce wind and rain; they also look great together. Plant 12–18" apart in light moist humusy soil in full sun with good air circulation. Z4.

A. novi-belgii **'Alert'** beautiful semi-double blooms are deep purplish red with a golden-yellow eye. Excellent late-season cutflower. Compact habit. 12–15" tall.

L523A*: 1 for $5.25*
L523B*: 3 for $13.50*
L523C*: 6 for $23.50*

A. dumosus **'Wood's Light Blue'** displays clusters of crisp light blue blossoms with golden orange eyes. Compact habit requires no staking. 12–16" tall.

L524A*: 1 for $5.25*
L524B*: 3 for $13.50*
L524C*: 6 for $24.00*

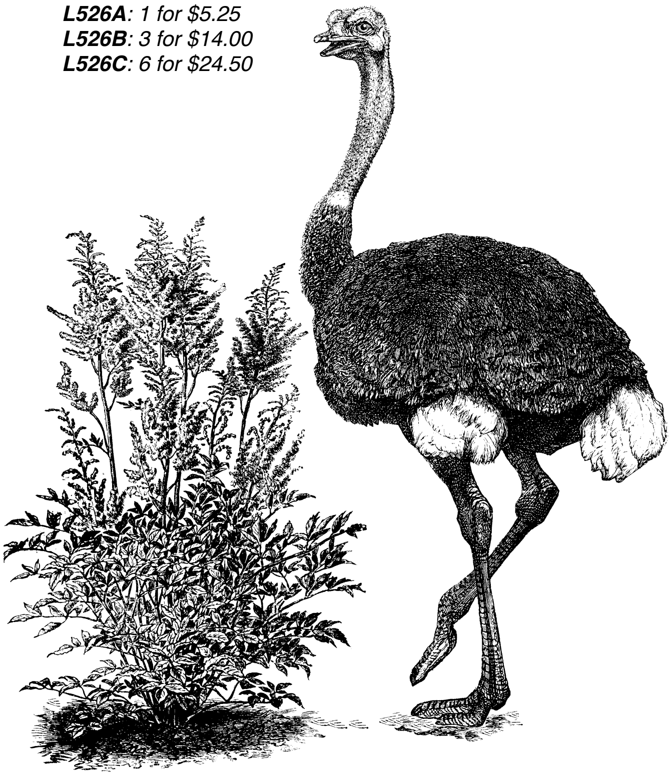
Astilbe **Feather Flower** or **False Spirea** Long-lasting plumes of feathery flowers are good for drying and provide an interesting contrast to more ordinary petaled blossoms. Elegant fern-like foliage forms an attractive clump all season and comes in a wide range of sizes and shades. Convention holds Astilbe to be a partial-shade plant that absolutely requires a moist humusy acid soil when grown in full sun. That's true in warmer areas, but in central Maine it seems to tolerate full sun in a wide range of conditions. Blooms July and August. Said to be deer-resistant. Stock has 2–3 "eyes." Plant 12–18" apart and divide clumps every few years. Z4.

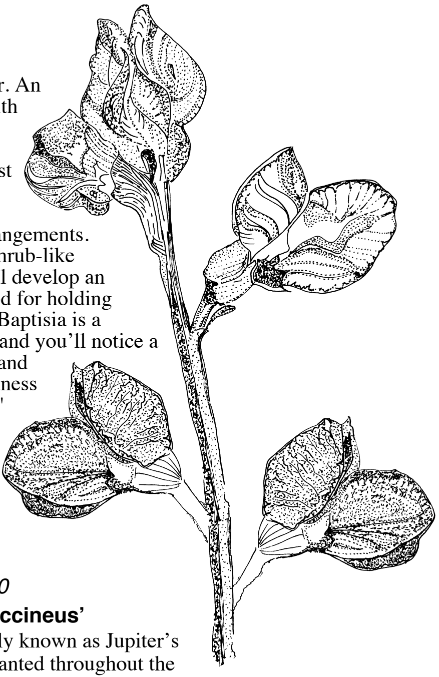
A. arendsii **'Burgundy Red'** Dark red scapes carry raspberry-colored buds opening to a rich burgundy-red on glossy forest-green foliage. Early-midseason. 18–20" tall.

L525A*: 1 for $4.00*
L525B*: 3 for $8.75*
L525C*: 6 for $16.00*

A. chinensis **'Delft Lace'** Deep salmon-pink buds open to soft apricot-pink flowers. Lacy deep blue-green waxy leaves turn burgundy in fall. This new variety is said to be even better than 'Peach Blossom'. Early-midseason. 24–36" tall.

L526A*: 1 for $5.25*
L526B*: 3 for $14.00*
L526C*: 6 for $24.50*



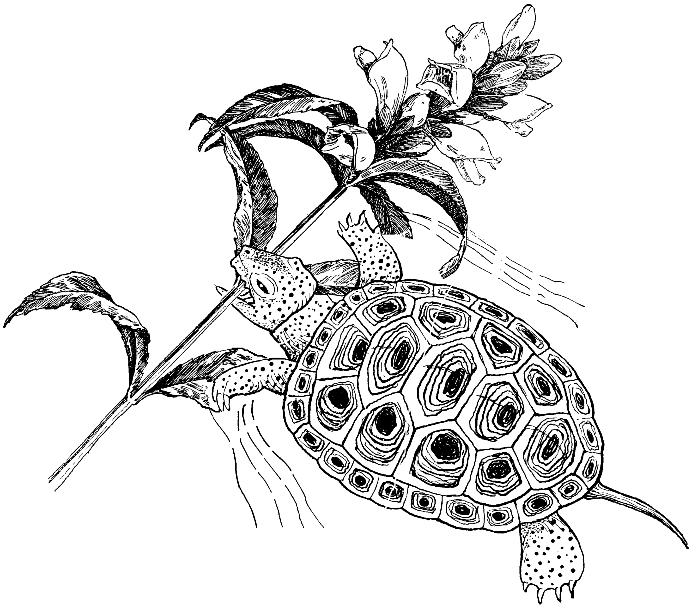


Baptisia australis
Blue False Indigo 2010 Perennial Plant of the Year. An early summer stand-out with vibrant blue lupine-like flowers. Seed pods turn black in fall, adding interest to the autumn landscape, and providing a unique element to dried floral arrangements. Forms a bushy habit and shrub-like structure once mature. Will develop an extensive root system, good for holding slopes to prevent erosion. Baptisia is a member of the pea family and you'll notice a resemblance in its foliage and flowers, as well as its fondness for cooler weather. Plant 3' apart in full sun and well-drained acid soil. Grows 3–4' tall and just as wide. Our stock is 3" plugs. Z3.

L527A*: 1 for $5.25*
L527B*: 2 for $9.50*
L527C*: 3 for $13.00*

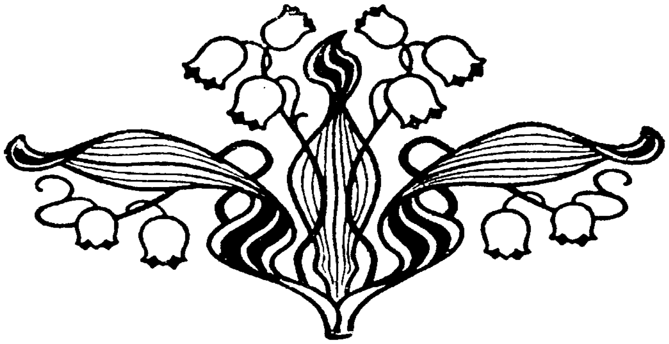
Centranthus ruber **'Coccineus'**
Red Valerian Historically known as Jupiter's Beard, and passionately planted throughout the mid-Atlantic states during the first half of the 19th century. Red Valerian generates clusters of tiny star-shaped carmine-rose flowers on erect stems above bushy masses of glossy grey-green lance-shaped foliage. Clump-forming plant produces fragrant showy blooms from spring till frost, performing best in the early part of the season. Deadhead to encourage steady blooms or let it go to seed to start a new generation. Good for the naturalized border, cottage or cutting garden. Useful planted on dry banks to combat soil erosion. Strictly ornamental, *Centranthus ruber* does not share the same medicinal qualities as *Valeriana officinalis,* offered on page 70. Plant in full sun or part shade, in dry limey soil. 24–36" tall Z4.

L528A*: 1 for $4.75*
L528B*: 3 for $12.50*
L528C*: 6 for $22.00*



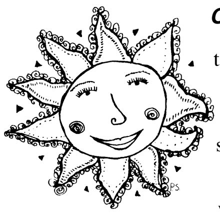
Chelone obliqua **Turtlehead** A cultivated version of the unique native wildflower. Bears upright stems with boldly veined deep-green leaves topped by large bright pink hooded flowers that are shaped very much like a turtle's head. Try planting en masse at the mouth of a woodland path. Deer avoid the bitter foliage. Perfect in moist woods or at the water's edge—these pleasing late-season flowers will flourish in a wide range of soils, from clay to sandy, as long as they're not waterlogged. Plant about 12" apart in dappled sunlight. Grows 2–3' tall and just as wide. Z4.

L529A*: 1 for $3.25*
L529B*: 3 for $7.50*
L529C*: 6 for $12.50*



Convallaria majalis Lily of the Valley Makes a hardy bedding or border plant and an excellent ground cover, even in dry shady areas. Produces long stems of bell-shaped fragrant white flowers in late spring to early summer, followed by small orange berries. Intoxicating fragrance and delicate shape add welcome notes to bouquets. Easy to grow under any conditions, but prefers partial to full shade. All parts of the plant are poisonous; wear gloves and wash up after handling it. Plant pips 2" deep, 3–5" apart in rich moist soil. 6–8" tall. Z2.

***L530A**: 5 for $4.25*
***L530B**: 10 for $7.50*
***L530C**: 25 for $17.50*



***Coreopsis grandiflora* 'Early Sunrise'** produces radiant semi-double golden yellow flowers with a tangerine flush at the center. A workhorse in the wild border, this long-blooming drought-tolerant self-sowing cultivar offers unbeatable early to late season color. Deadhead to encourage a steady supply of blooms. Or, to attract birds in winter, leave the seedheads as goldfinches are especially fond of them. Plant in full sun 12–18" apart in moist, well-drained soil. 18–20" tall. Z4.

***L531A**: 1 for $3.75*
***L531B**: 3 for $7.25*
***L531C**: 6 for $13.50*

***Delphinium* 'Magic Fountains' Mix** No staking needed for these stunning sturdy 3' flower spikes. The 'Magic Fountains' series is easier to grow than the big delphiniums—as they get established they make a larger spectacle every summer, coming to rival the big ones for profusion of lavish flowers. Mix includes white, pink, lavender, lilac, sky blue and dark blue. They are heavy feeders: sidedress lightly in early, mid and late spring for best show. Remove spent flowerstalks to encourage fall rebloom. Plant 12–24" apart in highly fertile non-acid loam in full sun or light shade. 28–36" tall. Our plants this year are in 3" plugs. Z3.

***L532A**: 1 for $4.00*
***L532B**: 3 for $9.50*
***L532C**: 6 for $17.50*

***Dianthus gratianopolitanus* 'Firewitch' Cheddar Pink** displays a galaxy of clove-scented electric-pink blossoms with serrated petals on luminous silver-blue low-growing mats of evergreen foliage. A stunning combination of fragrance, foliage and flower. Beautiful carefree tidy groundcover. An excellent complement to Siberian iris in early spring and later with Nepeta 'Walker's Low.' Shear off the spent flowerheads to encourage a second bloom in the fall. Plant in full sun, 9–12" apart in light, well-drained soil. Be careful not to overwater. 7–8" tall. Z3.

***L533A**: 1 for $4.75*
***L533B**: 3 for $12.50*
***L533C**: 6 for $22.00*

***Dicentra* Bleeding Heart** Graceful racemes arch over clumps of attractive cut foliage. Distinctive heart-shaped flowers dangle in a row on each raceme like charms on a bracelet. This classic hardy long-lived perennial thrives in rich moist soil and partial shade. Plant 2–4" deep, 24" apart. Our stock has 2–3 eyes. Z3.

***D. formosa* 'Luxuriant' Western Bleeding Heart** Blooms all summer and tolerates heat and drought better than any other Dicentra. Cherry-red flowers defy the elements as they dangle above lush finely cut light-green foliage which is pretty as a fern's. Excellent border plant with a spreading habit, 12–15" tall.

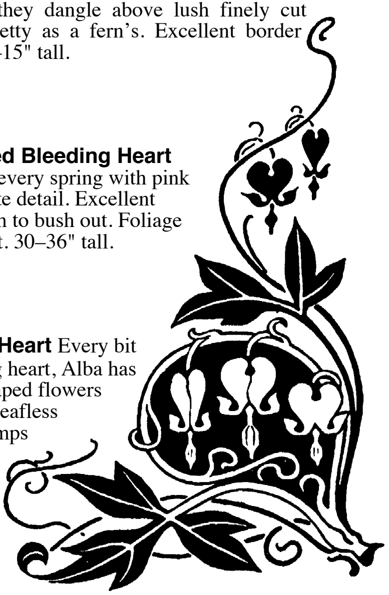
***L534A**: 1 for $5.25*
***L534B**: 3 for $13.75*
***L534C**: 6 for $24.00*

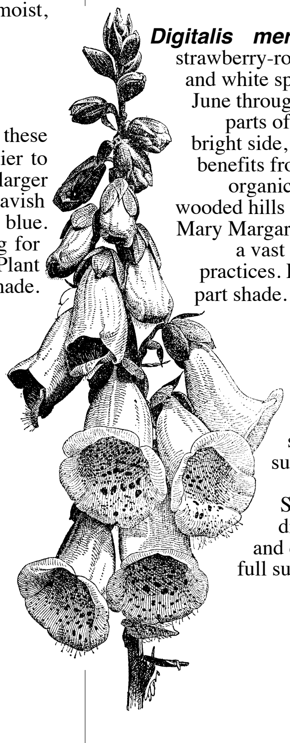
***D. spectabilis* Old-Fashioned Bleeding Heart** Classic garden favorite delights every spring with pink heart-shaped flowers with a white detail. Excellent cutflower. Prefers plenty of room to bush out. Foliage tends to die back in summer heat. 30–36" tall.

***L535A**: 1 for $4.25*
***L535B**: 3 for $9.00*
***L535C**: 6 for $16.00*

***D. s.* 'Alba' White Bleeding Heart** Every bit as charming as the pink bleeding heart, Alba has elegant chains of *white* heart-shaped flowers that dangle beneath the arching leafless racemes. Forms large bushy clumps of light-green foliage. An essential addition to the cutflower garden. 30–36" tall.

***L536A**: 1 for $4.50*
***L536B**: 3 for $9.50*
***L536C**: 6 for $17.50*



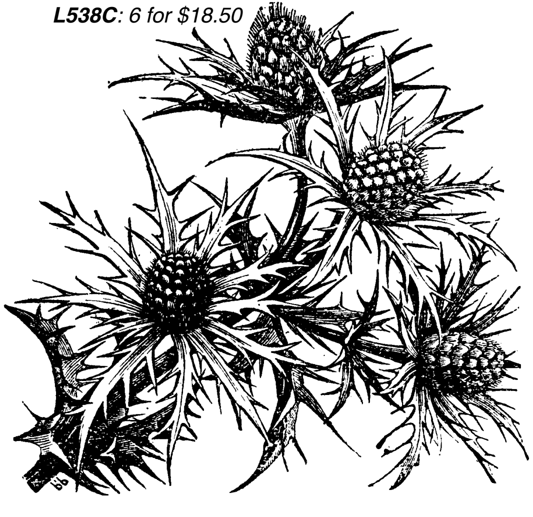


***Digitalis mertonensis* Strawberry Foxglove** Copper-tinged strawberry-rose 2½" pendulous bell-shaped flowers adorned with pink and white spotted throats. Basal rosette of big velvety leaves. Flowers June through August. Good for cutting or the naturalized border. All parts of the plant are poisonous, so wash after handling it. On the bright side, deer and rabbits avoid it! True-breeding tetraploid hybrid benefits from dividing every 3 years. Our stock is MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. Nestled in the wooded hills of the Highlands Region are the 1½ acres of fields where Mary Margaret and Gene Ripley cultivate robust perennials along with a vast array of vegetables for market using excellent sustainable practices. Plant 24–36" apart in moist slightly acid soil in full sun to part shade. 2–4' tall. Z3. **ME Grown.**

***L537A**: 1 for $6.25*
***L537B**: 3 for $16.00*
***L537C**: 6 for $28.00*

***Eryngium planum* 'Blue Glitter' Sea Holly** Egg-shaped shimmering steel-blue flowerheads rise from star-shaped silvery feathered bracts on bluish-green stems surrounded by sharply cut foliage. Exhibits a rare silhouette in the back of my sunny rock gardens. Try planting with Siberian iris, Achillea, lavender or Veronica for a stunning display of color and form. Excellent as a cutflower in fresh and dried arrangements. Tolerates dry soils. Plant 18" apart in full sun. 28–30" tall. Z4.

***L538A**: 1 for $4.00*
***L538B**: 3 for $10.50*
***L538C**: 6 for $18.50*



Ferns are flowerless spore-producing perennials represented by over 10,000 species worldwide, ranging from 70' tropical tree ferns to teeny plants sprouting from cracks in alpine rock. In Maine we enjoy lush fern displays all summer on the roadsides and in the woods. More and more people are using ferns as foundation plantings and in all kinds of shaded spots. Ferns make wonderful low-maintenance foliage plants that thrive in moist woodsy humus-rich soil and lend a serene aura to a shady garden or landscape. Mulch if necessary to keep crowns from drying out.

Christmas Fern *Polystichum acrostichoides* Remains evergreen in warmer zones, where it's widely used for Christmas cut greenery. Shuttlecock of fronds with ladder-like parallel leathery dark green leaves is partially evergreen in our climate. Provides good fall interest and emerges in very early spring to complement woodland flowers. Prefers moist acidic soil and light shade, tolerates sun given sufficient moisture. Plant 2–3' apart. 18–24" tall. Northeastern native. Z3.

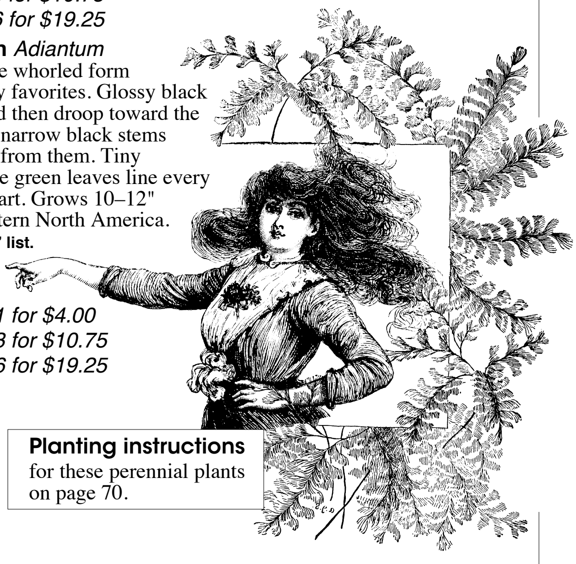
***L539A**: 1 for $4.00*
***L539B**: 3 for $10.50*
***L539C**: 6 for $19.25*

Lady Fern *Athyrium filix-femina* Graceful bright green fronds are twice compound with numerous leaflets resulting in a fine-textured classic fern appearance. Works as a foundation planting on the shady sides of my house. Many variant forms, some taller than 4' but most are under 2'. Spreads easily from falling spores in moist soils. Tolerates more sun and drier soil than most ferns. Plant 2' apart. Native to most of the Northern Hemisphere. Z3.

***L540A**: 1 for $4.00*
***L540B**: 3 for $10.75*
***L540C**: 6 for $19.25*

Maidenhair Fern *Adiantum pedatum* Delicate whorled form makes it one of my favorites. Glossy black stems curve up and then droop toward the ground with more narrow black stems growing in arches from them. Tiny distinct ginkgo-like green leaves line every stem. Plant 12" apart. Grows 10–12" tall. Native to eastern North America. Z2. **UpS "To-Watch" list.**

***L541A**: 1 for $4.00*
***L541B**: 3 for $10.75*
***L541C**: 6 for $19.25*



Planting instructions
for these perennial plants
on page 70.

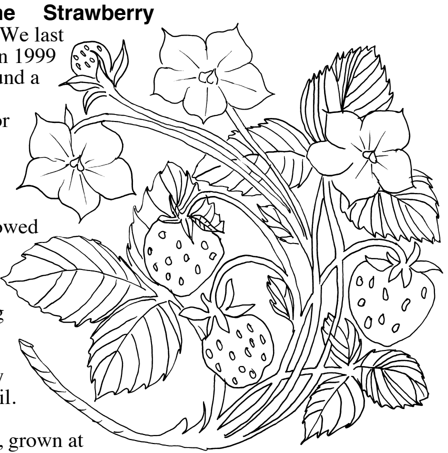
Ostrich Fern *Matteuccia struthiopteris* Our best-selling fern for the last 6 years. A delicately textured bright-green deciduous fern with a golden hue in the light. Frond tips curl like ostrich feathers. One of the largest hardy ferns, 3–7' tall, and spreads by underground runners, so give it room to spread. Likes open shade, woods and wet banks. Tolerates full sun in swampy areas. Native to Europe, but well established and welcome in North America. Z2.

***L542A**: 1 for $4.75*
***L542B**: 3 for $12.25*
***L542C**: 6 for $22.00*

Royal Fern *Osmunda regalis* One of the showiest garden ferns, makes a great focal point at the waterside or in a woodland. Attains giant proportions! Soft and wavy deciduous lance-shaped light green fronds can reach 3' long. Sometimes called **Flowering Fern** because some of the fronds have brown spore cases on their tips which lend a decorative tassel-like appearance. Reaches up to 6' tall and over 9' wide at maturity. Evolutionarily speaking, *Osmunda* is one of the oldest plant genera, native to North and South America and Asia. Some royal fern individuals are said to be 1000 years old. Ours are much younger. Z3.

***L543A**: 1 for $4.50*
***L543B**: 3 for $11.50*
***L543C**: 6 for $20.75*

***Fragaria vesca* Alpine Strawberry** Back by popular demand! We last carried alpine strawberry in 1999 and are thrilled to have found a local grower to cultivate these little jewels. Great for edging walkway, bed or border; spreads by runners that root as they go. Familiar compound leaves and white flowers are followed by juicy sweet tender rich red berries from late spring till fall. Leaves are considered blood purifying and diuretic in European folk tradition. Plant in full sun, 8–12" apart in slightly acid moist well-drained soil. 4–8" tall. Our stock is MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**



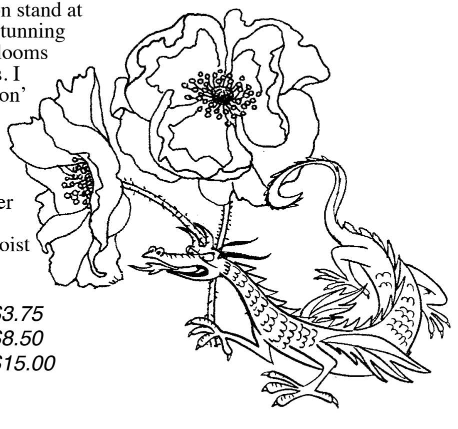
***L544A**: 1 for $6.25*
***L544B**: 3 for $16.00*
***L544C**: 6 for $28.00*

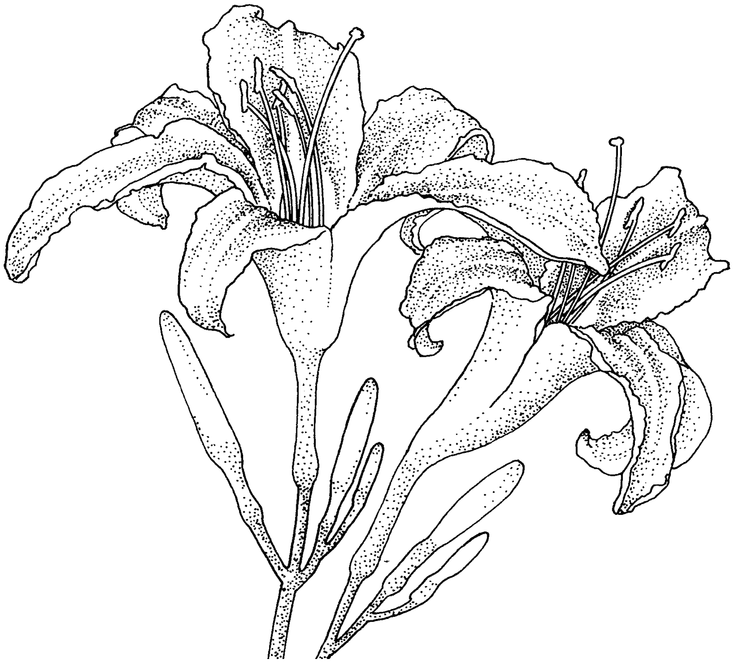
***Geranium pratense* 'Johnson's Blue' Cranesbill** Covered with $2^{1}/2$" vivid periwinkle-blue button-shaped blossoms from late spring into midsummer. Frilled green leaves take on brilliant shades of orange and red in autumn, and distinctive long narrow "cranesbill" seedpods flutter jauntily above the spreading mat-like foliage. Try planting with Geum—the combination of blue and red literally stopped traffic at my roadside gardens last summer. Shear off spent flowers and foliage to encourage a flush of new growth and to maintain a nice mounded form. Tolerates partial shade, but flowers more in full sun. Plant 12–18" apart in average garden soil. 12–24" tall. Z4.

***L545A**: 1 for $4.25*
***L545B**: 3 for $10.00*
***L545C**: 6 for $17.00*

***Geum chiloense* 'Red Dragon' Avens** Brilliant $2^{1}/2$" red flowers appear on 20" stalks above mounded rosettes of serrated foliage, nodding daintily at first, they soon stand at attention to show their stunning double intense scarlet blooms with golden-yellow eyes. I can't pass by 'Red Dragon' in my garden without being beckoned to stare. Attracts butterflies and hummingbirds with late-spring to midsummer blooms. Plant in full to partial sun, 1' apart in moist well-drained soil. 12–15" tall. Z4.

***L546A**: 1 for $3.75*
***L546B**: 3 for $8.50*
***L546C**: 6 for $15.00*





Hemerocallis **Daylily** Champion low-maintenance perennial produces a bush of narrow arched leaves topped with lily-shaped flowers from July to September. *Hemerocallis* means *beautiful day*, referring to the fact that each flower lasts only a day, but since each scape (or stem) is covered with buds, bloom periods can be extensive and the long stems work well in bouquets. Trouble-free, chokes out weeds. For foundation planting, terrace, brookside, border or wild garden. Flourishes under a wide range of conditions, from full sun to shade, wet to dry. Plant 12–18" apart in average soil; benefits from a shovel or two full of compost. Z2.

Once again we are delighted to list varieties from Lew Purinton, Somerville, ME, gardener and daylily collector *extraordinaire*. Supplies may be limited; order early.

H. **'Corryton Pink'** displays an eye-catching combination of soft cool rose with a subtle salmon blush on sizable 5" flowers with frilled petals. Delicate dark pink veining and single luminous pink lines reach toward an apricot-yellow throat with a green-tinted eyezone. 27" tall. **ME Grown.**

L547A*: 1 for $4.50*
L547B*: 3 for $11.50*
L547C*: 6 for $20.50*

H. **'Katahdin'** Majestic plants with saturated color beckon from afar. Slightly ruffled petals are a deep burgundy-rose with a darker maroon band around a yellow-orange throat with purple stamens and green-tinted eyezone. Grows 3' tall. Bred in Maine by the late Ron Valente. **ME Grown.**

L548A*: 1 for $4.50*
L548B*: 3 for $11.50*
L548C*: 6 for $20.50*

H. **'Mary Todd'** Pure bright yellow blossoms span 6" across with softly ruffled edges. Blooms early and readily re-blooms throughout the season. Mary is a vigorous multiplier, so give her room to spread. 18–24" tall. **ME Grown.**

L549A*: 1 for $4.50*
L549B*: 3 for $11.50*
L549C*: 6 for $20.50*

H. **'Sparkling Orange'** Blossoms generate a radiant mass of color, featuring a glowing melange that softly shimmers through orangy-yellow and creamy-tangerine on wide petals. The moment I set foot in Lew's gardens I made a beeline for these stunners. Barth introduction. 36–40" tall. **ME Grown.**

L550A*: 1 for $4.50*
L550B*: 3 for $11.50*
L550C*: 6 for $20.50*

H. **'Tropic Sunset'** Turns up the heat with sultry salmon-rose blossoms with glowing golden throats. Flowers reach 5" across with gently ruffled edges. Try planting next to 'Corryton Pink' for a spellbinding display of colors. 18–20" tall. **ME Grown.**

L551A*: 1 for $4.50*
L551B*: 3 for $11.50*
L551C*: 6 for $20.50*

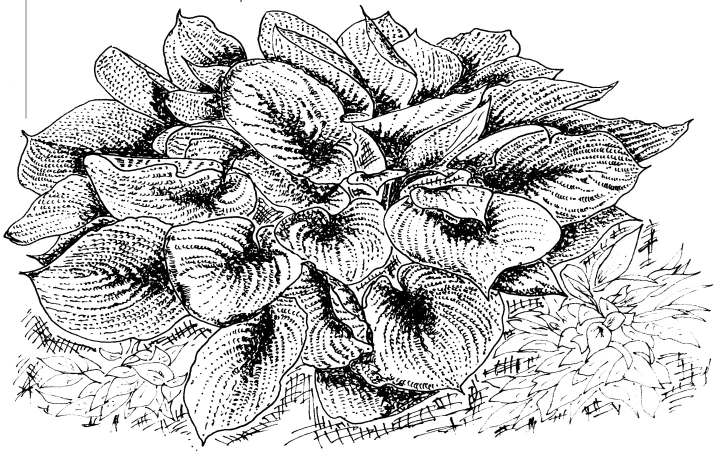
Hibiscus moscheutos **'Sultry Kiss' Rose Mallow** sports giant 9–11" intense magenta-red flowers with overlapping petals. Beautiful foliage emerges bronze, turns deep green on attractive reddish-purple stems. Glorious vigorous tall plant, hibiscus is one of the last to appear in spring, making it a good companion for spring bulbs. Since it emerges so late, be careful not to root it out during spring cleanup. After emerging, it grows like crazy. Starts blooming mid to late summer and goes until frost. Though native to southern swampy margins and meadows, tolerates dry soil once fully established. Plant 18–24" apart in full sun and average garden soil. 4–5' tall. Hardy to Zone 4!

L552A*: 1 for $10.50*
L552B*: 2 for $17.00*
L552C*: 3 for $23.50*

Hosta has bold foliage in orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks. Valuable and cherished low-maintenance border plant provides shade-loving ground cover from spring to frost. With their varying colors, textures and clump sizes, hostas alone under trees can make a woodland garden. Hostas tolerate a wide range of soil conditions, but need moisture. Those with blue and variegated leaves develop their best color in shade. Deep shade gives fewer flowers. A quick clipping of spent flower stalks restores the clump's tidy attractiveness until frost. Plant 2–4' apart in rich soil with adequate humus. Divide every 4–5 years, or disturb clumps as little as possible; they improve with age as they spread and establish. Z3.

H. sieboldiana **'Earth Angel'** Hosta of the Year in 2009. Sport of 'Blue Angel'. Forms an impressive clump of giant blue-green pointed leaves with wide creamy white margins and deep ribs. Lavender flowers. 30" tall and 40" wide.

L553A*: 1 for $5.50*
L553B*: 2 for $9.50*
L553C*: 3 for $12.50*



EARTH
HOSTA
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INTERES

***H.* ‘Olive Bailey Langdon’** Displays large rounded corrugated leaves with deep powder-blue centers and wide irregular golden margins. White flowers. An improved version of the popular ‘Frances Williams’ has better color and is less prone to burning. 20" tall and 60" wide.

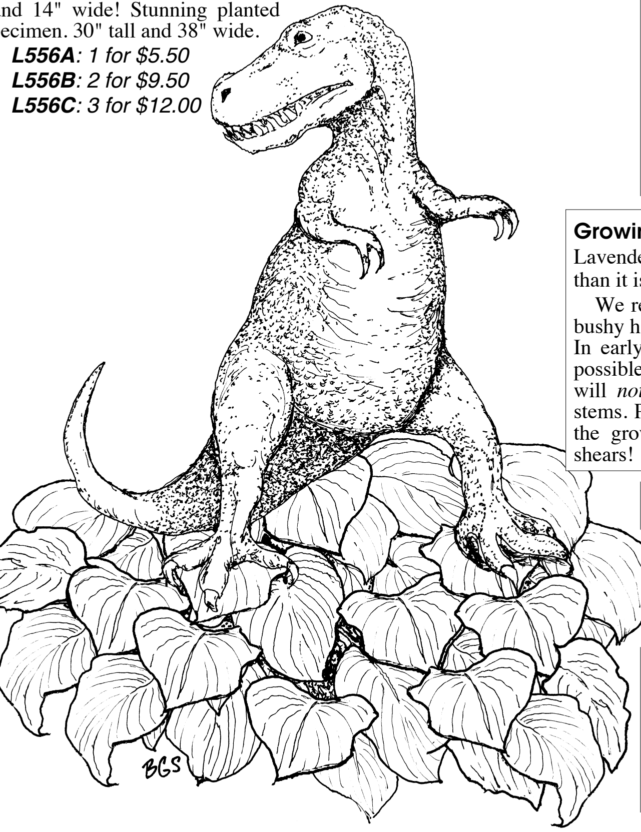
L554A: *1 for $5.25*
L554B: *3 for $14.50*
L554C: *6 for $22.00*

***H.* ‘Orange Marmalade’** Sport of ‘Paul’s Glory’. Leaves emerge a bright golden-yellow with tangerine accents and dark green margins. Centers gradually fade to pure white by the end of summer while the edge remains a deep and lovely green. To retain the best colors plant in nearly full shade. Lavender flowers. 28" tall and 60" wide.

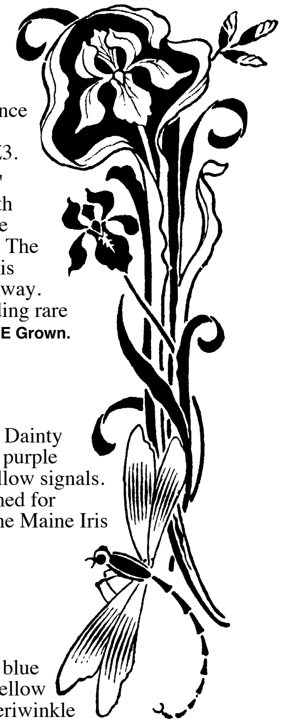
L555A: *1 for $7.75*
L555B: *2 for $13.50*
L555C: *3 for $18.00*

***H.* ‘T–Rex’** Just when you thought it was safe to walk in the garden, this monster looms over the border. Glorious giant clumps of deeply veined and puckered blue-green leaves that measure 18" long and 14" wide! Stunning planted as a specimen. 30" tall and 38" wide.

L556A: *1 for $5.50*
L556B: *2 for $9.50*
L556C: *3 for $12.00*



***Iris sibirica* Siberian Iris** In late June, delicate flowers dance atop strong thin stems excellent for cutting. Tall slender slate-green foliage looks good all summer. Tolerates most conditions, but performs best in rich moist acid soil. Plant 12–15" apart in full sun or partial shade. Give them room to spread, and divide clumps every few years. Once again we offer locally grown stock from the beautiful Fieldstone Gardens in Vassalboro. Z3.



***I. s.* ‘My First Kiss’** Magical tetraploid 5–6" blooms have deep rosy lavender-blue falls with blue-violet veining, growing darker toward the center. Standards are a light pinkish-lavender. The dramatic variations in shade and tone make this bloom stand out from several hundred yards away. We couldn’t resist bringing back this outstanding rare variety bred by Dunlop & Cole. 30-36" tall. **ME Grown.**

L557A: *1 for $9.25*
L557B: *2 for $17.00*
L557C: *3 for $23.00*

***I. s.* ‘Shirley Pope’** Currier McEwen, 1979. Dainty diploid 4–5" blooms have vibrant velvet deep purple standards and falls with contrasting lemon-yellow signals. These handsome breathtaking blooms are named for Shirley Pope of Gorham, a past president of the Maine Iris Society. 28-30" tall. **ME Grown.**

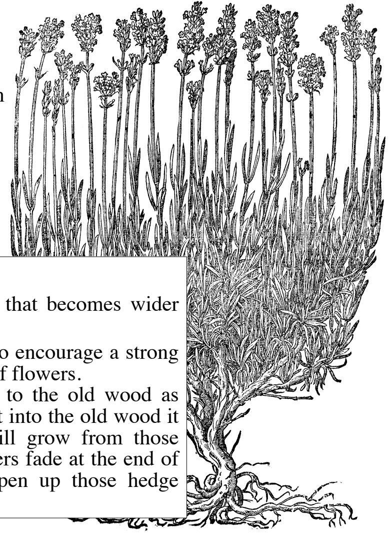
L558A: *1 for $6.50*
L558B: *2 for $11.25*
L558C: *3 for $15.00*

***I. s.* ‘Silver Edge’** Currier McEwen, 1974. Vigorous tetraploid 6" blooms have crisp icy blue falls outlined by a silver edge, with a lemon yellow blaze. Standards are cornflower blue with a periwinkle line centered on each petal. 30-32" tall. **ME Grown.**

L559A: *1 for $6.50*
L559B: *2 for $11.25*
L559C: *3 for $15.00*

***Lavandula angustifolia* ‘Munstead’ Lavender** Sweet-scented lavender-blue flower spikes extend above aromatic silvery-green lanceolate foliage. Valued for dried arrangements, potpourri and herb bundles, lavender’s aroma soothes the nervous system and perfumes the linen closet. Blooms all summer. Makes a nice border, rockery, slope, edging or specimen plant. Plant in full sun, 12–18" apart in moist well-drained soil. Our stock is MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. 16-18" tall. Z4. **ME Grown.**

L560A: *1 for $6.50*
L560B: *2 for $12.50*
L560C: *3 for $16.75*



Growing Lavender as a Hedge

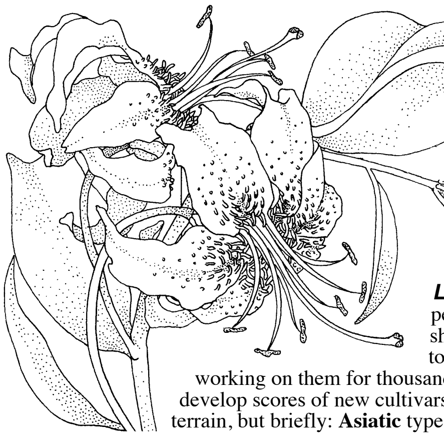
Lavender makes a fragrant 2–3' tall hedge that becomes wider than it is tall as it gets established.

We recommend a twice-annual shearing to encourage a strong bushy habit that produces a greater volume of flowers.

In early spring, trim the lavender as close to the old wood as possible without cutting into it. If you do cut into the old wood it will *not* regenerate and no new shoots will grow from those stems. Perform the second shearing as flowers fade at the end of the growing season. For best results sharpen up those hedge shears!

***Liatris spicata* Blazing Star** or **Gayfeather** grows stiff dense “bottlebrush” magenta-purple flower spikes above fine grass-like foliage. Flowers are good for cutting; leave 1/3 of stem on plant. Blooms from July to September. Tolerates a broad range of growing conditions, but not drought. Plant in full sun, 3" deep, 8–12" apart, in well-drained fertile soil. 20–30" tall. Z3.

L561A: *10 for $2.75*
L561B: *20 for $4.75*
L561C: *50 for $10.00*



***Lilium* Lilies** Queen of the perennial border, fabulously showy and surprisingly easy to grow. Breeders have been working on them for thousands of years and continue to develop scores of new cultivars every year. It's confusing terrain, but briefly: **Asiatic** types bloom early with upward facing star-shaped blossoms on stalks reaching up to 4' tall. **Oriental** strains bloom late with fragrant, flamboyant slightly pendant blossoms on stalks reaching heights well above 5'. This year we are also listing *L. superbum*, a native species with orange "turkscap" flowers.

Excellent as bedding plants or cutflowers, good as specimens or in solid masses. Light shade prolongs summer blooms and keeps the bulbs cool. Mulch in full sun. Plant bulbs 6–8" deep, 6" apart in rich well-drained soil, slightly acid with good humus content. Z3.

***L.* 'Black Out'** Asiatic. Rich glossy burgundy-red with even darker spotting on the throat. Few lilies have such a dark, smoldering color. 44–48" tall. $1\frac{1}{2}$–$1\frac{3}{4}$" bulbs.

L562A*: 2 for $3.50*
L562B*: 6 for $10.00*
L562C*: 12 for $17.50*

***L.* 'Casa Blanca'** Oriental. Pure white with textured white specks, and bobbing russet anthers. Absolutely gorgeous and their alluring fragrance fills the garden. Always one of our most popular offerings. 40–44" tall (but we've seen them blooming from 3–8'). Great prices on 2–$2\frac{1}{4}$" bulbs.

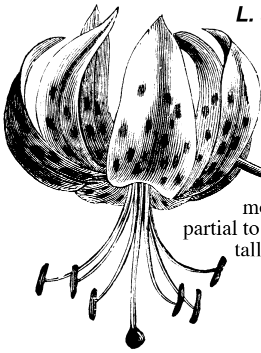
L563A*: 2 for $3.75*
L563B*: 6 for $10.50*
L563C*: 12 for $18.00*

***L.* 'Stargazer'** Oriental. Wildly popular for its fragrant deep-rose blossoms with dark spots and narrow white edging. Flowers are huge when plants become well established. 24–30" tall. Bargain prices on $1\frac{3}{4}$–2" bulbs.

L564A*: 2 for $3.50*
L564B*: 6 for $9.50*
L564C*: 12 for $16.00*

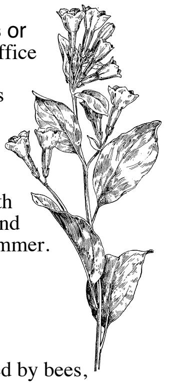
***L.* 'Sweet Rosy'** Oriental. Shock the neighbors with outstanding double-flowering lilies! Rare double blooms are pink with crimson spotting at the center and a sweet spicy intoxicating fragrance. Exceptionally long bloom time. 32-40" tall. 2–$2\frac{1}{4}$" bulbs.

L565A*: 1 for $5.75*
L565B*: 3 for $14.75*
L565C*: 6 for $26.00*



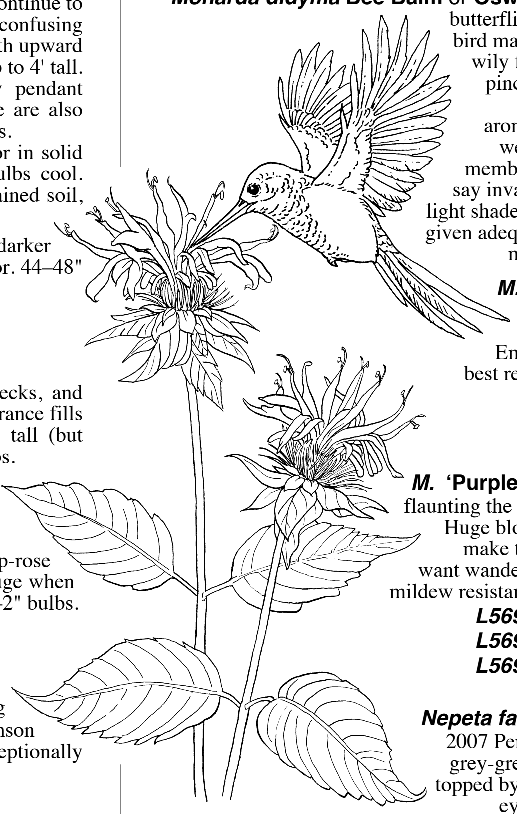
***L. superbum* Turkscap Lily** Native woodland species capable of bearing up to thirty blossoms on one plant. The maroon-spotted orange petals curve backward to touch the stem as the flower hangs facing downward, almost as if it's inside-out. The turkscap foliage forms unmistakable wild whorls every few inches along its striking purple stems. Prefers wet meadows and the edges of moist woods, so plant in moist dappled shade, or partial to full sun in a wet area. Flowers July–Sept. 3–7' tall. Z5, maybe Z4 if protected.

L566A*: 1 for $4.00*
L566B*: 3 for $10.50*
L566C*: 6 for $18.50*



***Mertensia virginica* Bluebells** or **Virginia Bluebells** or **Virginia Cowslip** When Kip brought bluebells into the office during the daffodil bloom one year, I remembered what a spring treat they are. Clump-forming plant with erect stems and oval veined leaves bears clusters of nodding bell-shaped flowers on terminal cymes. Pink buds open to sky-blue or purple-blue flowers which look a lot like those of borage or Pulmonaria. In fact, the newer name is *M. pulmonarioides*. Beautiful in shade displays with ferns, with Dicentra, with daffodils or Scilla. Prefers moist lowlands and acid woodsy soil in part shade. 18–24" tall. Dormant in summer. Native to eastern North America, nursery propagated. Z3.

L567A*: 1 for $6.25*
L567B*: 3 for $16.50*
L567C*: 6 for $28.00*



***Monarda didyma* Bee Balm** or **Oswego Tea** is loved by bees, butterflies and is one of the best hummingbird magnets nature has to offer! Wild and wily flowers form with tubular petals on pincushion heads borne above colorful bracts in July and August. Coarse aromatic foliage. Good for borders, for wet areas and for cutting. A vigorous member of the mint family—some might say invasive. Plant crowns 16–20" apart in light shade in moist soil. Thrives in full sun if given adequate moisture or mulched with leaf mold; tolerates most conditions. Z3.

***M.* 'Jacob Cline'** Huge red flowers, span 5" across. Jacob shows good vigor and resistance to mildew. Embraced in the nursery trade as "the best red." 3–5' tall.

L568A*: 1 for $5.25*
L568B*: 3 for $13.00*
L568C*: 6 for $24.00*

***M.* 'Purple Rooster'** Commands attention flaunting the rich royal purple that people crave. Huge blossoms atop long sturdy stems with make this Monarda the one rooster you'll want wandering all over the garden. Excellent mildew resistance. 3' tall.

L569A*: 1 for $6.00*
L569B*: 3 for $16.00*
L569C*: 6 for $28.50*

***Nepeta faasenii* Catmint 'Walker's Low'** 2007 Perennial Plant of the Year. Aromatic grey-green foliage with long arching stems topped by lavender-blue flowers provides an eye-catching show of color nearly all summer. Creates a strong dependable low-growing hedge along any garden path. Flowers attract bees, butterflies, hummingbirds and human admiration. Cut back in midsummer to encourage steady blooms. Likes hot and dry, but will grow in any well-drained soil, full sun to part shade. 2–3' tall despite its name. Z3.

L570A*: 1 for $3.75*
L570B*: 3 for $9.75*
L570C*: 6 for $17.50*

Lily leaf beetle (*Lilioceris lilii*) has made its way to central Maine. We've had good results picking the first flush of adults and dropping them in soapy water; we've seen very few larvae. Some leaves had holes in them but the damage was nothing like the denuded stalks that some gardeners described. Standard organic insecticides are also effective.

Small attractive bright red beetles (the adults) overwinter in soil and plant debris, and emerge in early spring to munch, mate and lay tiny dull-orange eggs in irregular rows on the undersides of leaves. Larvae hatch in about a week and feed for 16–24 days on leaves of lilies (not daylilies), fritillaria, and nightshades. The larvae are the real nuisance: voracious eaters, they carry their excrement on their backs to deter predators which makes them mighty unappealing. They then drop to the ground where they pupate in cocoons. In about 25 days they emerge as adults.

***Paeonia lactiflora* Garden Peony** or **Chinese Peony** Red shoots appear in spring and form a bushy clump, about 3' x 3', of lustrous dark-green deeply lobed foliage. Fat spherical buds on sturdy stems above the foliage gradually open into large beautiful flowers from late spring to early summer. (Ants may help the buds to open so don't discourage their presence.) May take up to 3 to 5 years to establish before blooming and resents being disturbed. Wait several years, until the plants have many stems (therefore many eyes), before attempting to divide. Z3.

Again we are excited to list Maine-grown peonies. Eleesha Tonken, who maintains and breeds a collection of spectacular peonies, roses, clematis and other perennials at Harvest Hill Farm in Waldoboro, is supplying us with her stock. It's such a treat to visit Harvest Hill and see so many extraordinary peony varieties, with blooms bigger and more beautiful than the peonies we usually see. This year we selected three early standouts from her collection.

***P. l.* 'Coral Charm'** Brilliant coral semi-double Japanese type has cup-shaped flowers. Coral-pink buds open to a rich coral-peach, drifting into soft subtle shades of melon, apricot, and tangerine. Mature plants will show all shades at once on stunning 6" blooms. 36" tall. Early. 2–3 eyes. **ME Grown.**

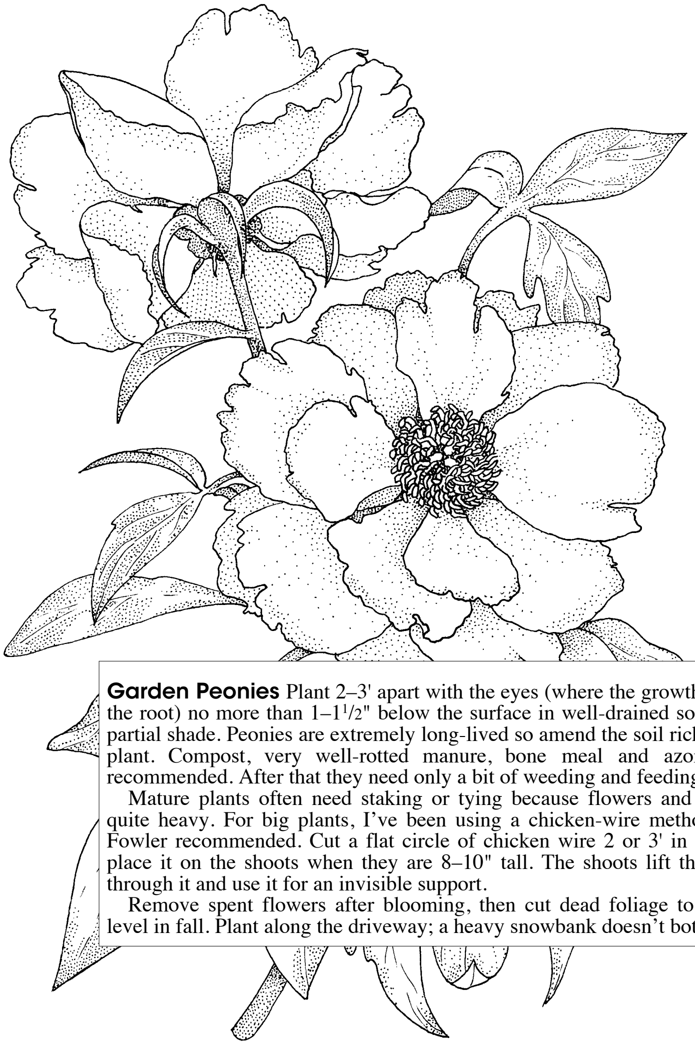
***L571A**: 1 for $17.50*
***L571B**: 2 for $33.50*
***L571C**: 3 for $45.00*

***P. l.* 'Paree Fru Fru'** Distinctive fluffy bomb type. A fragrant irresistible spiral of lavender-pink petals surrounded by a burst of dreamy cream-colored staminodes set on a lavender pink base. This striking bicolor is 36" tall, yet requires no staking. Early. 2–3 eyes. **ME Grown.**

***L572A**: 1 for $17.50*
***L572B**: 2 for $33.50*
***L572C**: 3 for $45.00*

***P. l.* 'Summer Carnival'** Unusual flared and fluted petals are a soft delicious pink, smothered in swirls of red-raspberry, on a creamy white base. Unique blossoms will leave you lusting for a raspberry parfait! Early. 2–3 eyes. **ME Grown.**

***L573A**: 1 for $17.00*
***L573B**: 2 for $30.00*
***L573C**: 3 for $40.50*

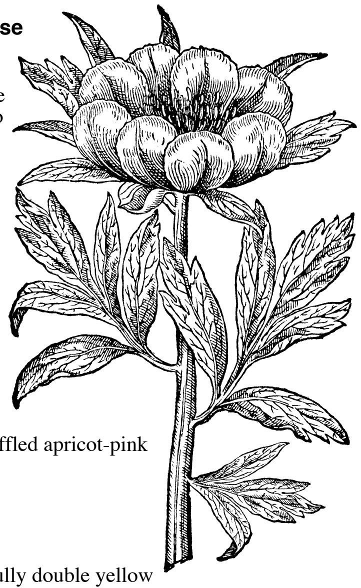


Garden Peonies Plant 2–3' apart with the eyes (where the growth shoots meet the root) no more than 1–1½" below the surface in well-drained soil, full sun to partial shade. Peonies are extremely long-lived so amend the soil richly when you plant. Compost, very well-rotted manure, bone meal and azomite are all recommended. After that they need only a bit of weeding and feeding to flourish.

Mature plants often need staking or tying because flowers and buds can be quite heavy. For big plants, I've been using a chicken-wire method that Mary Fowler recommended. Cut a flat circle of chicken wire 2 or 3' in diameter and place it on the shoots when they are 8–10" tall. The shoots lift the wire, grow through it and use it for an invisible support.

Remove spent flowers after blooming, then cut dead foliage to near ground level in fall. Plant along the driveway; a heavy snowbank doesn't bother them.

***Paeonia suffruticosa* Japanese Tree Peony** or **Moutan** is expensive, but as garden writer Peter Coats says, "It is worthwhile to sell everything one possesses to buy pæonies, and to dig up everything else in the garden to make room for them." Large stunning flowers in early June, before Garden Peony. Semi-double extravagantly big flowers with loose satiny petals. Full sun promotes fastest growth but also fades the flowers which do best in dappled shade. 48–60" tall. 1-yr. plants may need 2–3 years to mature before blooming begins. Z4.



***P. s.* 'Hanakisoi' Tree Peony** Features fragrant and elegantly ruffled apricot-pink semi-double blooms.

***L574A**: 1 for $28.00*
***L574B**: 2 for $48.00*
***L574C**: 3 for $65.00*

***P. s.* 'Kinkaku' Tree Peony** Fully double yellow petals have orange edges, giving an overall orange effect.

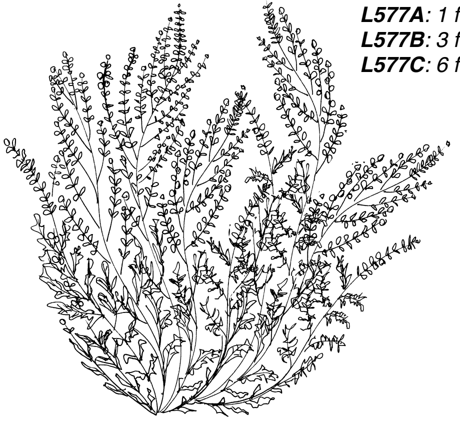
***L575A**: 1 for $32.00*
***L575B**: 2 for $54.00*
***L575C**: 3 for $73.00*

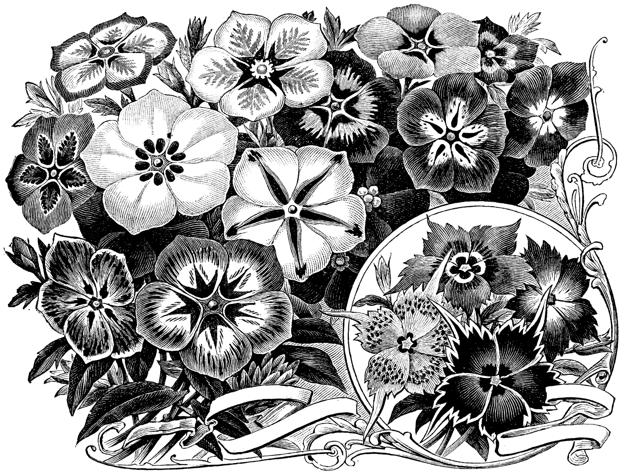
***P. s.* Purple Tree Peony** Profusion of semi-double deep pink to burgundy blooms with yellow stamens.

***L576A**: 1 for $28.00*
***L576B**: 2 for $48.00*
***L576C**: 3 for $65.00*

***Perovskia atriplicifolia* Russian Sage** blooms in midsummer with slender airy spires of lavender-blue tubular flowers. Finely divided grey leaves are aromatic when crushed. 1995 PPA Plant of the Year. Low-maintenance background or filler, beautiful with roses or whites and blues. Perovskia has one of the longest bloom times of any blue-flowered plant. Upright habit, semi-woody shrub. Emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and full sun, can't bear standing water. 3–4' tall. Likes to spread out once it gets established; plant 24–36" apart. I suspect that Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

***L577A**: 1 for $4.50*
***L577B**: 3 for $11.00*
***L577C**: 6 for $19.50*





***Phlox paniculata* Garden Phlox** produces large spreading clusters of fragrant showy long-blooming flowers in mid to late summer when so many blooms are fading, and produces delicate satiny panicles when so many blooms are coarse. Wonderful color and fragrance for accents, border or naturalized area. Attracts butterflies and hummingbirds. Essential component of late-summer wedding bouquets. Extend flowering season by watering and prompt deadheading. Prefers humus-rich soil that stays cool and moist in summer and benefits from regular sidedressing. Plant 2' apart, full sun to partial shade. Z3.

***P.* 'Laura'** Fragrant magenta-purple flowers with starry white spokes and dark eyes. Makes an excellent addition to the cutting garden. When I include 'Laura' in mixed bouquets at my roadside stand they fly off the table in no time. Demonstrates excellent mildew resistance. 24–30" tall.

***L578A**: 1 for $5.25*
***L578B**: 2 for $9.00*
***L578C**: 3 for $12.00*

***P.* 'Nicky'** Darkest of the tall garden phlox, solid reddish-purple. Fragrant and good for cutting, good mildew resistance. 30–36" tall.

***L579A**: 1 for $5.25*
***L579B**: 2 for $9.00*
***L579C**: 3 for $12.25*

***P.* 'Orange Perfection'** Sweetly scented giant flaming salmon-orange blossoms on rugged stems. Beautiful. 30–36" tall.

***L580A**: 1 for $5.25*
***L580B**: 2 for $9.00*
***L580C**: 3 for $12.25*

***Platycodon grandiflorus* Balloon Flower** In mid to late summer, fascinating balloon like buds burst into splendid blue bell-shaped flowers delicately set upon upright stems above the foliage. Makes a nice cutflower. Clump-forming plant has deep green oval-to-narrow leaves that look good in most settings. As well as being of excellent ornamental value, it is also a widely used Chinese medicinal plant. Called *Jie geng* in China, the roots have astringent and expectorant properties making it a common remedy for cough, sore throats, lung and skin conditions. Roots of plants 2– 3 years old are harvested in the spring or autumn, peeled and used fresh or dried. Correct dosage is important so consult your local herbalist if you intend to use as an herbal remedy. Plant in full-sun to part-shade in cool, moist, well-drained soil. Emerges slowly in spring. 15–40" tall. Sustainably grown by Lauren Cormier. Z3. **ME Grown.**

***L581A**: 1 for $6.25*
***L581B**: 3 for $18.00*
***L581C**: 6 for $29.00*

***Polygonatum biflorum* Solomon's Seal** forms clumps of graceful arching stems about 3' long with long narrow alternate leaves. Greenish-white bell-shaped tubular flowers dangle from the stems in a row in late spring, and become small round blue-black fruits in early fall. Native Americans used the root tea for ailments of stomach and lung and for general debility, and used washes from the root for external injuries. Western herbalists use the root as a connective tissue anti-inflammatory and to strengthen weak joints and ligaments. Don't confuse it with False Solomon's Seal which has a plume-like flower at the *end* of the stem. As herbalist Jim McDonald points out: in the wood, "there's always more False Solomon's Seal than True, and this makes its ecological status an important consideration, especially when harvesting." Therefore, it's best to grow your own patch for making herbal remedies. Solomon's Seal is ideal for the shade or woodland garden. Z3.

***L582A**: 1 for $3.75*
***L582B**: 3 for $9.75*
***L582C**: 6 for $17.00*

***Pulmonaria* 'Polar Splash' Lungwort** Brighten up your shade garden with this bold-textured woodland perennial. Pulmonaria blooms like a chameleon, with periwinkle-blue buds that open to charming pink flowers, creating a striking effect with both colors appearing at once on the same plant. As beautiful as a winter night sky, ovate slate-green leaves are dressed in vivid silver-white splotches. 'Polar Splash' presents a brilliant early-season contrast to blooming daffodils and emerging hostas and ferns. Mildew-resistant and more sun-tolerant than most Pulmonarias. Plant 1–2' apart in moist soil and full to partial shade. Grows 9-12" tall with a spread up to 2' wide.

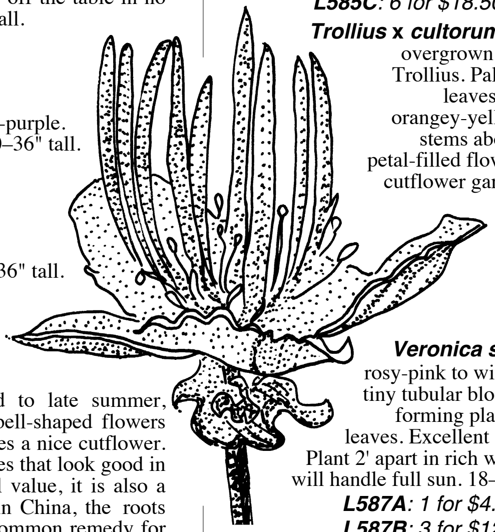
***L583A**: 1 for $4.00*
***L583B**: 3 for $9.50*
***L583C**: 6 for $17.00*

***Sedum spurium* 'Summer Glory'** Thrives in hot dry areas providing a dense evergreen mat-forming groundcover. Gorgeous bright pink star-shaped flowers cluster together atop this two-rowed stonecrop. Succulent green serrated leaves develop reddish tints in cool weather. Plant in full sun, 18" apart in well-drained soil. Grows 4–6" tall. Our stock is 3" plugs. Z3.

***L584A**: 1 for $4.00*
***L584B**: 3 for $9.75*
***L584C**: 6 for $18.00*

***Trillium erectum* Red Trillium, Stinking Benjamin** or **Wakerobin** Our local wildflower preserve features huge patches of red trillium blooming in late April, a spectacular and pleasing sight. All the descriptions mention a bad smell, but we don't get the "stinking" part, detecting only a faint oceany hint of tidal flats. Maroon blossom with three petals and three sepals sits erect on a short stem above the three oval leaves in a single whorl. Grows in moist rich woods, full or part shade, from Nova Scotia to the mountains of Georgia, west into Michigan. 8–16" tall. Nursery propagated. Z4.

***L585A**: 1 for $4.00*
***L585B**: 3 for $10.25*
***L585C**: 6 for $18.50*



***Trollius* x *cultorum* 'Orange Princess'** One could call them big overgrown buttercups and I do—but I am also crazy about Trollius. Palmately lobed, then further divided and toothed, leaves form a shiny dark green mound. Globe-shaped orangey-yellow double flowers bloom in late spring, on tall stems above the foliage. That time of the year, the fancy petal-filled flowers seem miraculous. Excellent addition to the cutflower garden. Can be a bit difficult to establish, but very long-lived and rugged once it is settled. Plant 8–12" apart in moist, heavy soil, full sun to part shade. 12–24" tall. Z3.

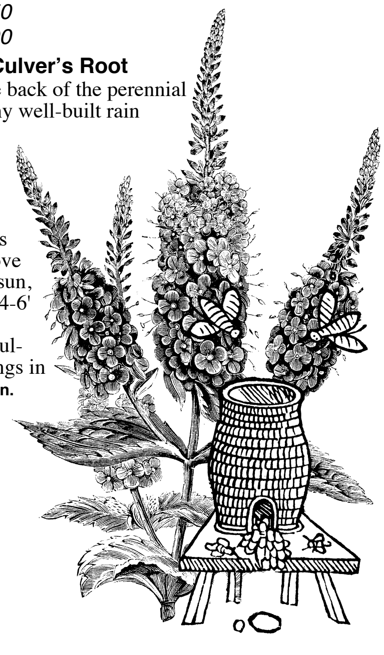
***L586A**: 1 for $4.00*
***L586B**: 3 for $10.50*
***L586C**: 6 for $18.50*

***Veronica spicata* 'Red Fox' Speedwell** Multiple erect rosy-pink to wine-red flower spikes, each thickly covered with tiny tubular blossoms from early summer into autumn. Clump-forming plant has narrow glossy deep-green finely serrated leaves. Excellent addition to border or rockery. Good for cutting. Plant 2' apart in rich well-drained soil. Does its best in part shade but will handle full sun. 18–20" tall. Our stock is 3" plugs. Z3.

***L587A**: 1 for $4.75*
***L587B**: 3 for $12.50*
***L587C**: 6 for $22.00*

***Veronicastrum virginicum* Culver's Root** Makes a beautiful addition to the back of the perennial border and is a requirement in any well-built rain garden. Elegant towering native dons huge 9" flower spikes with densely clustered tiny white blossoms that open from the top down in early summer. Lance-shaped leaves form whorls on rugged upright stems. Bees love this flower. Plant 2' apart in full sun, in wet, well drained soil. Grows 4-6' tall yet rarely needs staking. Our grower Lauren Cormier says, "Culver's Root is so beautiful it belongs in every herb garden!" Z3. **ME Grown.**

***L588A**: 1 for $6.75*
***L588B**: 2 for $12.00*
***L588C**: 3 for $16.00*



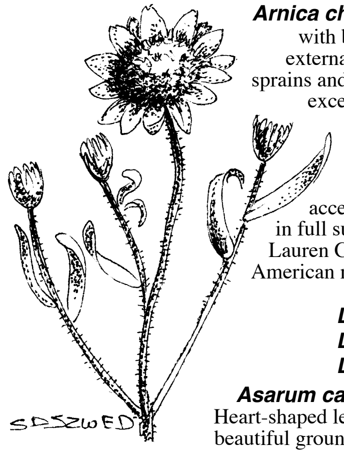
Herbaceous Medicinals Growing and using the medicinal plants in your garden creates the perfect classroom for learning that Nature usually provides the solution to most of its own problems. Growing plants as medicine allows you to observe their physical forms and spirits as well as to learn the rich cultural histories surrounding the use of a vast array of plant species.

For safety's sake we urge you to consult a local herbalist or botanical apothecary before using medicine made from any plant. Accurate plant identification and research is vital for your own protection! Some of the plants listed are specifically for low-dose or homeopathic usage.

Plants may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity. The organic listings are all certified by MOFGA Certification Services.

Actaea racemosa **Black Cohosh** or **Black Snakeroot** Formerly called **Cimicifuga racemosa**. Flourishes in the wilder part of the garden or shady border. From late July into August, long arching racemes of creamy flowers rise above the mound of compound foliage, hence another common name, **Fairy Candles**. Diuretic and anti-inflammatory. Anti-spasmodic for cramps, pains, cramped nerves and emotions, included in many perimenopausal formulas. We've heard quite a few wise women say rather passionately, "I *love* this plant!" Easy to grow, long-lived. Racemes extend 6–10' over a 3–4' mound. Prefers part shade, but tolerates full sun in deep moist soil. Good in boggy spots. Plant 30–36" apart in rich moist soil high in humus. We are happy to list certified-organic black cohosh grown by Joanna Linden at Shooting Star Farm in Canaan. Z3. **ME Grown. UpS "At-Risk" list.**

***L589A**: 1 for $7.50*
***L589B**: 2 for $13.75*
***L589C**: 3 for $18.00*



Arnica chamissonis Spreading groundcover with bright yellow daisy-like flowers used externally in oils and salves to treat bruises, sprains and inflammation. Never take internally except in homeopathic doses. In the right conditions a few plants will develop into a dense long-lived patch. Blooms in July. Grows successfully in our climate and is a generally accepted substitute for *A. montana*. Plant in full sun 1' apart in moist well-drained soil. Lauren Cormier sustainably grew these North American natives. Z3. **ME Grown. UpS "To-Watch" list.**

***L590A**: 1 for $7.00*
***L590B**: 2 for $12.50*
***L590C**: 3 for $16.50*

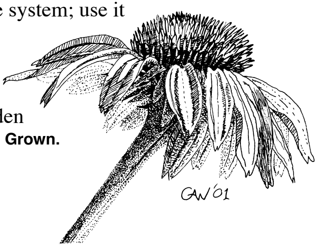
Asarum canadense **Canadian Wild Ginger** Heart-shaped leaves up to 7" wide will spread into a beautiful groundcover. Leaves are large and slightly fuzzy, not small and glossy like the European species. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds and motion sickness. Grown for roots and foliage. The small reddish-brown urn-shaped flowers grow near the soil surface or in the leaf mold so crawling insects will pollinate them. They're fun to search for but won't decorate your landscape. Requires shade and moist, rich woodland soil. 6–12" tall. Z3.

***L591A**: 1 for $4.25*
***L591B**: 3 for $11.50*
***L591C**: 6 for $18.00*

Astragalus membranaceus **Chinese Milk Vetch** Root is *huang qi* in China. Deep-rooted leguminous plant bears rows of whitish-yellow flowers on arching racemes. Forms an upright bush with many stems each thickly covered with tiny pinnate leaves and small racemes. Important Chinese medicinal, when used over many months provides rebuilding of the immune system while helping combat exhaustion. Long-term tonic use increases stamina and improves resistance to cold temperatures. Harvest 4- to 6-year-old roots in fall. Plant in full sun, 12" apart in deep, gravelly well-drained soil. 18–36" tall. Our stock is certified organic, grown at Ripley Farm in Dover-Foxcroft. Z4. **ME Grown.**

***L592A**: 1 for $8.00*
***L592B**: 2 for $15.00*
***L592C**: 3 for $19.50*

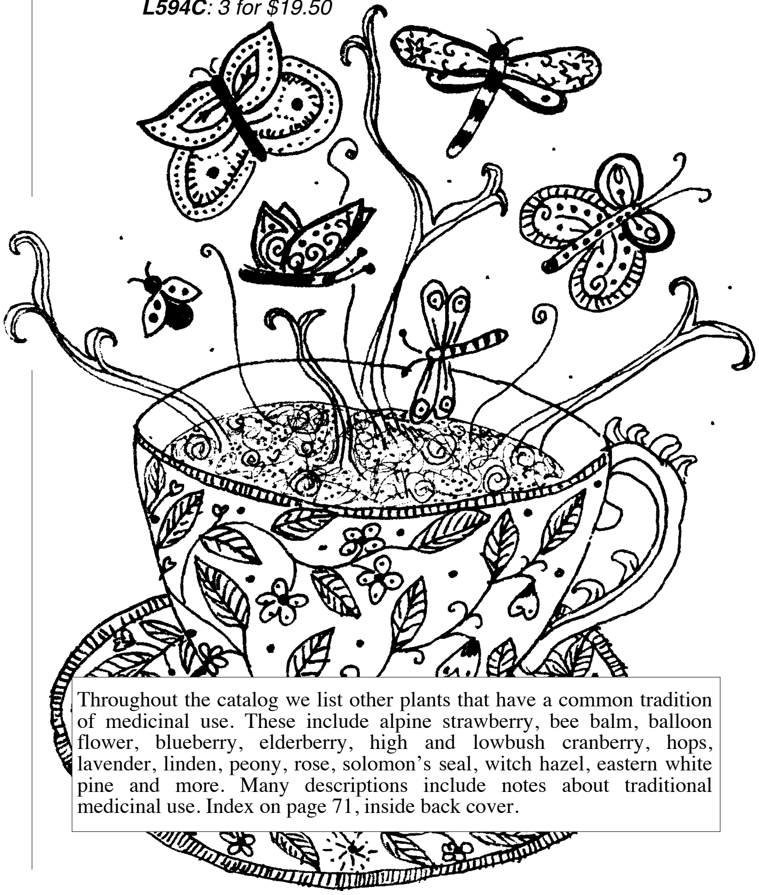
Echinacea purpurea **Purple Coneflower** *Echinos* means spiny and the flower's big conical centers are very spiny and coppery yellow-brown, surrounded by a single row of reflexed lavender-purple petals. Flowers attract butterflies and beneficial insects, and last well when cut. Their colors marry pinks, oranges, lavenders and golds that wouldn't ordinarily go together in beds or bouquets. Tincture the roots of 3-year-old plants for a remedy that gives an immediate boost to the immune system; use it when you feel a cold or flu coming on. Tolerates wind, heat and drought once established. Will reseed abundantly. Plant 20–30" apart in full sun and light sandy soil. Grows 3'–5' tall. Joanna Linden grew our certified-organic stock. Z3. **ME Grown. UpS "At-Risk" list.**



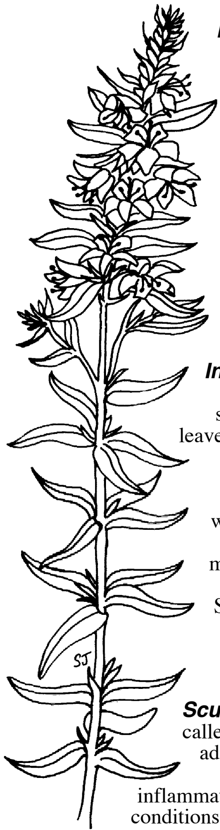
***L593A**: 1 for $7.00*
***L593B**: 2 for $12.50*
***L593C**: 3 for $16.50*

Glycyrrhiza uralensis **Chinese Licorice** The root is called *Gan cao* in China. Valued as a medicine, sweetener and a flavor. Soothes stomachaches, sore throats, and mucous membranes of the lungs; also balances energy and hormones. Good for menopausal women, but people with hypertension and diabetes should avoid, as it can increase blood pressure. Leguminous plant has alternate oval leaves, light violet clover-like flowers, and roots capable of delving 4' into the ground. Unless you are saving the seeds, you can snip off the flowering tops to channel energy into the roots, which will attain harvestable size in 2–3 years. Prefers sandy slightly alkaline, well-drained yet moisture-retentive soil. Minimize weed competition to allow roots room to spread out. Plant in full sun, 12–18" apart. Grows 1–3' tall. Sustainably grown by Lauren Cormier. Z5, possibly Z4 with protection. **ME Grown.**

***L594A**: 1 for $8.00*
***L594B**: 2 for $15.00*
***L594C**: 3 for $19.50*



Throughout the catalog we list other plants that have a common tradition of medicinal use. These include alpine strawberry, bee balm, balloon flower, blueberry, elderberry, high and lowbush cranberry, hops, lavender, linden, peony, rose, solomon's seal, witch hazel, eastern white pine and more. Many descriptions include notes about traditional medicinal use. Index on page 71, inside back cover.



Hyssopus officinalis **Hyssop** Violet-blue flower stalks reach for the sky on this plant that's potent for attracting pollinators. Bees love it! Leaf and flower infusions long used for sore throats and stomach troubles, flower spikes in cough syrups. In ancient Greece, *Hyssopos* was a holy herb used for cleaning sacred places. Thrives in dry soil, useful on slopes and any sunny difficult place. Makes a lovely aromatic low hedge. Plant 12–24" apart in poor soil, full sun to light shade. 12–20" tall. Our stock is certified organic, grown at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**

L595A*: 1 for $7.00*
L595B*: 2 for $12.50*
L595C*: 3 for $16.50*

Inula helenium **Elecampane** Spectacular towering plant sports bright yellow daisy-type flowers with skinny little petals, set on tall stalks with long woolly leaves. Attracts beneficial insects. Mucilaginous roots are expectorant; support and decongest lungs, are antibacterial and anti-fungal, and help balance blood sugar. Harvest 2-year-old or older roots in mid-fall when they contain up to one quarter of their weight in inulin. Achieving heights of up to 8', Elecampane makes a great addition to the wild border. Plant in full sun or part shade, 2–3' apart, in ordinary garden soil. Sustainably grown by Lauren Cormier. Z3. **ME Grown.**

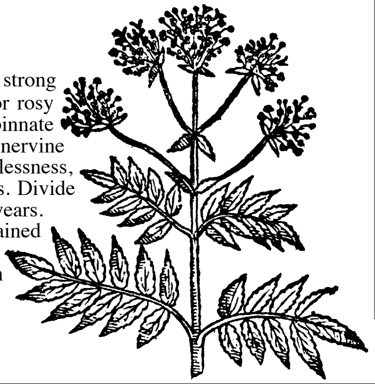
L596A*: 1 for $5.75*
L596B*: 2 for $10.00*
L596C*: 3 for $13.50*

Scutellaria baicalensis **Baikal Skullcap** The root is called *Huang qin* in China. One of natures most effective adaptogenic herbs, helping the body adapt to stress and restore normal function. Baikal skullcap reduces inflammation, strengthening the body's ability to fight allergic conditions such as asthma, hay fever and eczema. In traditional Chinese medicine, prescribed to knock out coughs with thick yellow phlegm and is most commonly used to battle gastrointestinal infections. Develops a shrublike crawling habit with green lance-shaped leaves and vibrant indigo blue blossoms. The root attains harvestable size in 3 to 4 years. Plant in partial shade, 1–2' apart, in light, well-drained soil. Grows 1–4' tall. Sustainably grown by Lauren Cormier. Z4. **ME Grown.**

L597A*: 1 for $7.00*
L597B*: 2 for $12.50*
L597C*: 3 for $16.50*

Symphytum officinale **Comfrey** or **Knitbone** Well-known for its skin-soothing properties. Contains allantoin, promotes healing of skin and bone; also demulcent for lung and throat. Clusters of bell-like pinkish purple flowers dangle above the deep green bristled foliage. Easy-to-grow vigorous plant demands space and *can be very invasive*; be careful where you plant it and control with regular harvest. Highly recommended as a companion plant for orchards. Space 16–24" apart in well-drained soil, sun or shade. 24–48" tall. Sustainably grown in China, ME. Z3. **ME Grown.**

L598A*: 1 for $4.50*
L598B*: 3 for $11.25*
L598C*: 6 for $20.00*



Valeriana officinalis **Valerian** A strong and upright plant with small white or rosy flowers in flat clusters above glossy pinnate leaves. Well known anti-spasmodic, nervine and sedative is often used for sleeplessness, anxiety and other nervous complaints. Divide or harvest thick rootstock every 4–5 years. Plant 12–15" apart in moist, well-drained soil in full sun. 2–4' tall. Organically grown at Blessed Maine Herb Farm in Athens, ME. Z3. **ME Grown.**

L599A*: 1 for $5.75*
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Cultivating Sanctuary Medicinal Collection offers you the opportunity to protect wild plants that are in danger of extinction in their natural habitat. These species have been designated by United Plant Savers (UpS) on either the "At-Risk" or "To-Watch" lists. The mission of UpS is to protect native medicinal plants of the United States and Canada while ensuring an abundant renewable supply for generations to come. By growing these plants as ornamentals or medicinals, you cultivate sanctuary for species in danger. Please note that we carry additional plants from the UpS lists, marked at the end of the description.

Our collection consists of one each of the following three plants:

Echinacea purpurea - UpS "At-Risk" list. Thought of as a very common plant due to its popularity in gardening and hybridizing. However, in its natural prairie habitat it has been vastly overharvested, and large stands have been lost to farm cultivation of the plains regions. Very easy to grow and will reseed abundantly. More information on page 69.

Asclepias tuberosa Butterfly Weed - UpS "To-Watch" list. Another prairie plant whose habitat has been compromised by large-scale agriculture. Used by many Native American tribes for lung ailments for over a thousand years before the herb entered European pharmacopoeias. Medicinally used in very small doses as a tincture for hard-to-cure lung infections. This is a *low-dose* medicinal plant. *Use with caution* and consult your local herbalist. Cultural instructions on page 60.

Arnica chamissonis - UpS "To-Watch" list. All Arnica species should be watched so that they do not reach the endangered status. This is an extremely popular plant medicine. Overharvesting by wildcrafters is a problem and in some countries in Europe it is illegal to pick arnica flowers. More details on page 69.

L600A*: 1 for $18.50*

Planting Instructions for Bare-Root Perennial Plants

Treat bare-root perennials and plugs like tender annuals for their first growing season, when they typically focus on root growth. Once established, usually in the second year, they are vigorous and floriferous.

When you receive your order, open the bags and check the stock immediately. Roots and crowns should be firm and pliable, not soft or brittle. If they are slightly dry, add a little water or, if they are going to be potted up soon, soak the roots. Generally, a little surface mold is harmless and will not affect the plant's future performance. If you cannot pot them up immediately, store them in a cool (35–40°) location for a short time.

Pot up the rootstock in well-drained potting mix. Most plants need a deep 6" pot or a 1-gallon container. Avoid coiling the roots in the bottom of undersized containers. Grow newly potted perennials for a few weeks in a protected location in indirect light at 50-60° and keep from freezing. Wet and/or cold conditions for an extended period may cause rotting. Begin feeding when new growth appears. Keep dry fertilizers away from plant crowns. Use animal manures with caution as they can promote fungal and bacterial diseases.

Transplant outside once they show some top growth and the danger of frost has passed. Dig a hole about twice the size of the pot, loosening the surrounding soil and adding compost or fertilizers as necessary. Generally, plant the top of the crown just below ground level, less than an inch from the surface of the soil.

Nearly all perennials appreciate a fall mulch and a sidedressing of compost or leaf mold in the spring.

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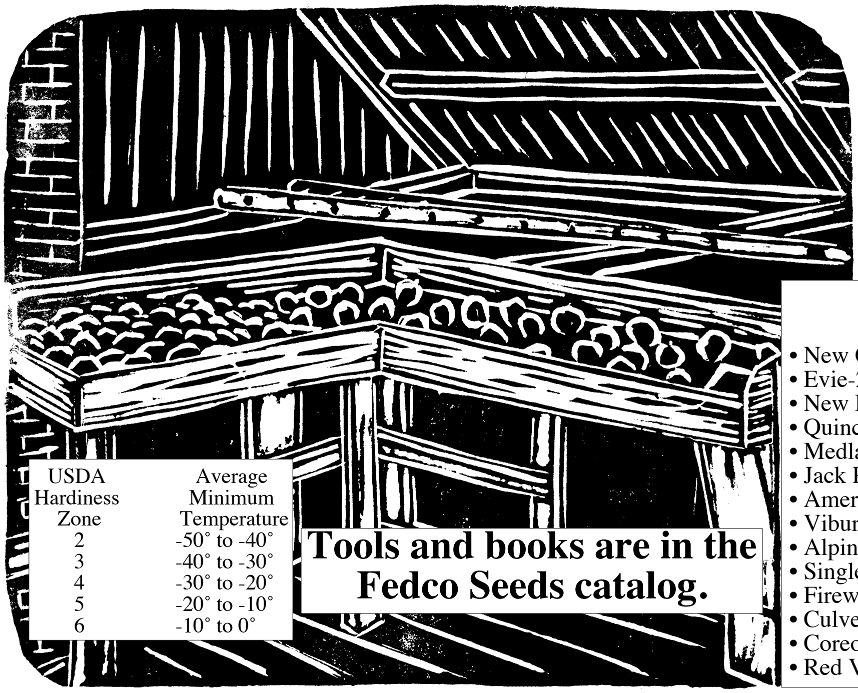

USDA Hardiness Zone	Average Minimum Temperature
2	-50° to -40°
3	-40° to -30°
4	-30° to -20°
5	-20° to -10°
6	-10° to 0°

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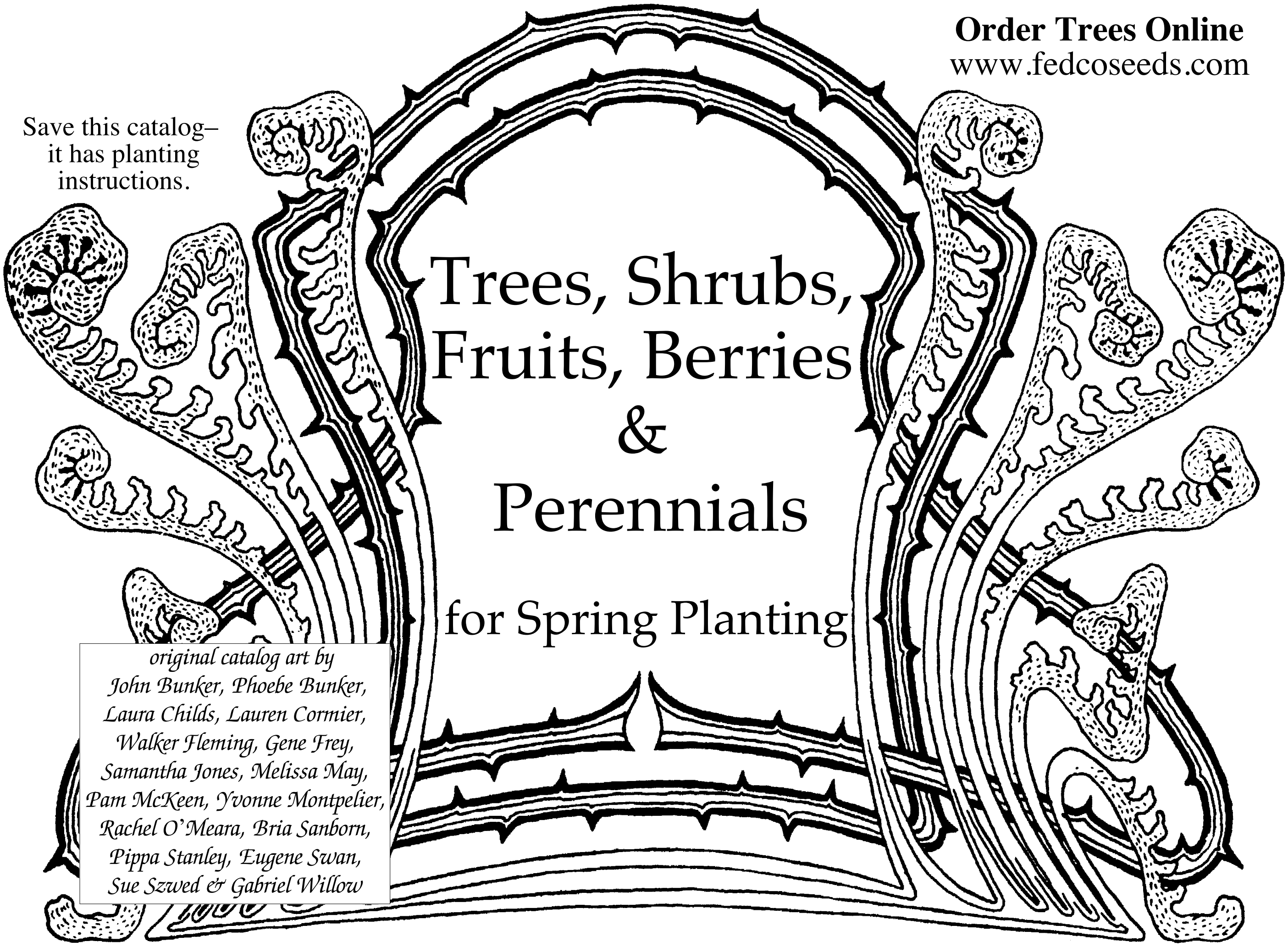

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